



Supplementary Materials for

Aerobic glycolysis promotes T helper 1 cell differentiation through an epigenetic mechanism

Authors: Min Peng*, Na Yin*, Sagar Chhangawala, Ke Xu, Christina S. Leslie, and Ming O. Li†

* These authors contributed equally to this work.

† correspondence to: E-mail: lim@mskcc.org

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Materials and Methods

Mice

Mice with one targeted allele of *Ldha* (*Ldha*^{tm1a(EUCOMM)Wtsi}) were obtained from EUCOMM, in which the third exon was flanked by two loxp sites. The mice were first crossed with a transgenic Flipase strain (Jackson Laboratory) to remove the Neo cassette, and then crossed with CD4^{Cre} transgenic mice to specifically delete *Ldha* in T cells. *Yeti* mice were kindly provided by Dr. Richard Locksley (UCSF). C57BL/6, CD4^{Cre} and *Foxp3*^{sf} mice were purchased from the Jackson Laboratory. All mice were maintained in the MSKCC animal facility under SPF conditions, and animal experimentation was conducted in accordance with institutional guidelines.

Antibodies

Anti-LDHA (2012S), anti-GAPDH (D16H11), anti-Histone 3 (D2B12) and normal rabbit IgG were purchased from Cell Signaling. Anti-LDHB (60H11), anti-Histone H3 (acetyl K9) (ab4441), anti-Histone H3 (acetyl K27) (ab4729) and anti-RNA polymerase II CTD repeat YSPTSPS (ab5131) were obtained from Abcam. Fluorescent-dye-labeled antibodies against CD4, CD8, TCR-β, CD44, CD62L, CD69, CD25, CD40L, IFN-γ, NK1.1, Foxp3 and T-bet were purchased from eBiosciences, BioLegend or Tonbo. Blocking antibodies for FcγR (2.4G2) and IL-4 (11B11), as well as anti-CD3 (145-2C11) and anti-CD28 (37.51) were obtained from Bio X Cell.

Flow Cytometry

Cells from thymi, spleens and lymph nodes were depleted of erythrocytes by hypotonic lysis. Cells were incubated with specific antibodies for 15 min on ice in the presence of anti-FcγR to block FcγR binding. Dead cells were excluded by DAPI (Invitrogen) staining. To determine cytokine expression, cells were stimulated with 50 ng/ml phorbol 12-myristate 13-acetate (Sigma) and 1 μM ionomycin (Sigma) in the presence of GolgiStop (BD Biosciences) for 4 h. After stimulation, cells were stained with cell-surface marker antibodies and LIVE/DEAD Fixable dye (Invitrogen) to exclude dead cells, fixed and permeabilized with a transcription factor staining kit (eBioscience), followed by staining with cytokine antibodies. All samples were acquired with an LSR II flow cytometer (Becton, Dickinson) and analyzed with FlowJo software (TreeStar).

In vitro Cell Culture

CD62L⁺CD44⁺CD25⁻CD4⁺ T cells were isolated from spleen and peripheral lymph nodes of wild-type (WT) or CD4^{Cre}*Ldha*^{f/f} (KO) mice with naïve CD4⁺ T cells isolation kits (Miltenyi or Stem Cell). Purity was checked by flow cytometry, and was over 98%. For *in vitro* T cell activation, 0.2 - 0.5 × 10⁶ naïve CD4⁺ T cells were cultured on a 24-well plate pre-coated with 5 μg/ml anti-CD3 in T cell medium [RPMI/1640, 10% fetal bovine serum, 2 mM glutamine, 1 mM sodium pyruvate, 1x non-essential amino acid (Invitrogen), 10 mM HEPES, 55 μM 2-mercaptoethanol, 100 U/ml penicillin, 100 mg/ml streptomycin] supplemented with 2 μg/ml anti-CD28 and 100 U/ml IL-2. For T helper 1 (Th1) cell differentiation, T cells were cultured with the addition of 10 μg/ml anti-IL-4 and 10 ng/ml IL-12. For cell proliferation experiments, naïve CD4⁺ T cells were labeled with CFSE (Invitrogen), activated on a 24-well plate pre-coated with 5 μg/ml anti-CD3 in

T cell culture medium supplemented with 2 µg/ml anti-CD28 and 100 U/ml IL-2. CFSE dilution was assessed by flow cytometry on day 1, 2 and 3 post-activation. For sodium acetate and TSA treatment experiment, cells were differentiated under Th1 condition for 3 days, and cultured in T cell medium supplemented with 100 U/ml IL-2, 10 µg/ml anti-IL-4, 10 ng/ml IL-12 and the indicated concentrations of sodium acetate (Sigma), TSA (Promega), or vesicle for 24 h. For ATP citrate lyase (ACL) inhibitor experiments, naïve CD4⁺ T cells isolated from WT mice were cultured under Th1 condition for 2 days. DMSO and indicated concentrations of ATP citrate lyase inhibitor (BMS-303141, Sigma) were added into the culture for another 24 hours.

3'UTR GFP Reporter Assay

3'UTR vectors were co-transfected with pCL-Eco helper plasmid into Phoenix cells, and the culture supernatant was used to infect activated T cells. Naïve CD4⁺ T cells isolated from WT and KO mice were activated with plated-bound anti-CD3 and soluble anti-CD28 for 2 days, and transduced with retroviral supernatants via spin-infection (2600 rpm for 2 h at 35 °C) and cultured for another 2 days. The GFP signal was examined by flow cytometry.

Zymography for LDH Isoenzymes

Heart and muscle tissues were harvested from mice perfused with ice-cold PBS, and homogenized to single cells with non-denaturing cell lysis buffer (Cell signaling). Activated CD4⁺ T cells and tissues were lysed with non-denaturing cell lysis buffer on ice for 20 min, and the cell lysate was centrifuged at 20,000 g for 10 min at 4 °C. The supernatants were diluted with 2 X native loading buffer (Biorad), and subjected to electrophoresis with precast 4 - 20% native gels (Biorad). The gels were subsequently incubated in a development solution containing 100 mM Tris-HCl (pH 8.0), 0.3 mM NAD (Sigma), 0.1 M sodium lactate (Sigma), 0.5 mM phenazin-methosulphate (Sigma) and 0.4 mM tetrazolium-blue (Sigma) at 37 °C for 30 min.

Immunoblotting

Cells were lysed with a cell lysis buffer (Cell Signaling), and protein concentrations were determined with a BCA kit (Thermo Scientific). Protein extracts were separated by SDS-PAGE gels and transferred to nitrocellulose blotting membranes (GE Healthcare). The membranes were probed with antibodies and visualized with the Immobilon Western Chemiluminescent HRP Substrate (Millipore).

Metabolic Assays

To determine glucose consumption and lactate production of activated CD4⁺ T cells, culture medium was replaced with fresh medium 48 h after T cell activation, and collected 24 h later. Medium alone in wells of the same plate was used as controls. Glucose and lactate levels in culture media were measured with a glucose assay kit II (BioVison) and lactate assay kit II (Sigma).

For measurement of cytosolic acetyl-CoA, naïve CD4⁺ T cells were differentiated under Th1 condition for 2 days and then cultured in fresh T cell medium for another 24 h. Cells were lysed with lysis buffer (1% Triton X-100, 20 mM Tris-HCl, pH=7.4, 150 mM

NaCl) on ice for 10 min. The lysates were spun at 20, 000 g for 10 min at 4 °C, the pellets (nuclei and heavy membrane) were discarded, and the supernatants were used for acetyl-CoA measurement with an Acetyl-CoA Assay Kit (Sigma). Freshly isolated naïve WT and KO CD4⁺ T cells were rested in T cell medium with 10 ng/ml IL-7 for 4 h at 37 °C in the incubator, and the level of acetyl-CoA was measured.

OCR and ECAR were measured with an XF96 extracellular flux analyzer (Seahorse Bioscience) following protocols recommended by the manufacturer. Briefly, freshly isolated CD4⁺ naïve or activated cells were seeded on XF96 microplates (150,000 cells/well) that had been pre-coated with Cell-Tak adhesive (BD Biosciences). The plates were quickly centrifuged to immobilize cells. Cells were maintained in a non-buffered assay medium (Seahorse Biosciences) in a non-CO₂ incubator for 30 min before the assay. Glycolysis was measured with XF glycolysis stress test kit (Seahorse Biosciences). Initially, cells were incubated in the glycolysis stress test medium without glucose, and ECAR was assessed. Three baseline recordings were made, followed by sequential injection of 10 mM glucose and 1 μM oligomycin that inhibited mitochondrial ATP production and shifted the energy production to glycolysis. The increased ECAR revealed the maximum glycolytic capacity of T cells. The final injection was 100 mM 2-DG, a glucose analog that inhibited glycolysis. The resulted decrease of ECAR confirmed that the ECAR observed in experiments was due to glycolysis. The Mito stress test kit (Seahorse Biosciences) was used to test OCR under different conditions. Three baseline recordings were made, followed by sequential injection of 1 μM oligomycin, 0.25 μM FCCP that uncoupled oxygen consumption from ATP production to obtain maximal OCR, and 0.5 μM rotenone/antimycin A that inhibited complex I and III.

Metabolic flux analysis of ¹³C₆-glucose in Th1 cells was determined by CE-MS. Briefly, ~ 10 million WT or KO Th1 cells were labeled with ¹³C₆-glucose (10 mM) in glucose-deficient RPMI1640 supplemented with 10% dialyzed FBS and 100 U/ml IL-2 for 2 h. Metabolites were extracted according to the Floating Cells Protocol E-150782, and shipped to Human Metabolome Technologies Inc. (Boston) for CE-MS analysis (F-SCOPE). Data were from three biological replicates.

RNA-seq and Quantitative RT-PCR

Total RNA was extracted with RNeasy kit (QIAGEN), cDNA libraries were generated and sequenced using a HiSeq 2000 platform (Illumina) at the Integrated Genomics Operation of MSKCC. For quantitative RT-PCR, RNA was reverse transcribed with Superscript III (Invitrogen). mRNA levels were normalized to β-Actin. The primers used were: *Actin*-F: 5'-GGCACACACCTTCTACAATG-3'; *Actin*-R: 5'-GTGGTGGTGAAGCTGTAGCC-3'. *Ifng*-F: 5'-CTTGACCCTCTGACTTGAG-3', *Ifng*-R: 5'-TTCCACATCTATGCCACTTGAG-3'.

RNA-Seq Analysis

Quality Control of raw reads was done using FastQC (v0.11.2) (10) to make sure there were no major flaws in sequencing. They were then mapped to mm10 genome using STAR (v2.3.0e_r291) (30) and default parameters. The mapped reads were counted using htseq-count (v0.6.0, parameters -t exon) (31) and gene models from Ensembl

(Mus_musculus.GRCm38.75.gtf). Differential expression was performed using DESeq2 (v1.2.10, default parameters) (32). Human orthologs were retrieved from Ensembl v75. DESeq2 normalized counts with human orthologs were provided to GSEA (v2-2.0.14) (33) for gene set enrichment analysis.

ChIP-seq and ChIP-qPCR

Chromatin immunoprecipitations were performed with SimpleChIP Enzymatic Chromatin IP Kit (Cell Signaling) according to manufacturer's instructions. Briefly, naïve CD4⁺ T cells were differentiated to Th1 cells for 3 days, and were fixed for 10 min at 25 °C with 1% formaldehyde. After incubation, glycine was added to a final concentration of 0.125 M to quench formaldehyde. Subsequently, cells were lysed and chromatin was harvested and fragmented using enzymatic digestion followed by sonication. The chromatin was then subjected to immunoprecipitation with anti-H3K9Ac at 4 °C overnight, and was incubated with protein G magnetic beads at 4 °C for 2 h. The immune complexes were washed, and eluted in 150 µl elution buffer. Elute DNA and input DNA were incubated at 65 °C to reverse the crosslinking. After digestion with proteinase K, DNA was purified with spin columns. The library was prepared with KAPA library preparation kit (Kapa Biosystems) and sequenced using a HiSeq 2000 platform (Illumina) at the Integrated Genomics Operation of MSKCC. The relative abundance of precipitated DNA fragments was analyzed by qPCR using Power SYBR Green PCR Master Mix (Qiagen) and the enrichments were normalized to *Cd3e* promoter. The following primers were used for qPCR: *Cd3e* promoter-F: 5'-TCAGTGTGGAGGTGCTTG-3', *Cd3e* promoter-R: 5'-CAGCCTTCCCATAAGGATGAA-3'; *Ifng* promoter-F: 5'-GGAGCCTTCGATCAGGTATAAA-3', *Ifng* promoter-R: 5'-CTCAAGTCAGAGGGTCCAAAG-3'; CNS22-F: 5'-GAGGCCAAATTCTGCTCATG-3', CNS22-R: 5'-GTTCTTCAGGAAGGCCGTTA-3'

ChIP-Seq Analysis

Reads were first trimmed using Trimmomatic (v0.33) (34). Reads were trimmed if first/last 3 nucleotides had phread quality score of < 15 or at the point where a sliding window of 4 nucleotides averaged a phred quality score < 15. Illumina adapters were also removed. The reads were then aligned using bowtie2 (v 2.2.6, options --fr --no-discordant) (35). Multimapping reads were removed after alignment. Peak calling was done using MACS2 (v2.1.0) (36) on pooled replicates and individual samples using p-value cutoff of 0.01. The peaks were then filtered further using IDR (37) to make sure the peaks are consistent among replicates. The promoter was annotated as region within 2,000 bp from TSS, intron was annotated as region within the gene body but not in the promoter region, and peaks at regions outside but close to gene body were annotated as intergenic.

Histopathology

Tissues from euthanized animals were fixed in Safefix II (Fisher) and embedded in paraffin. 5-µm sections were stained with haematoxylin and eosin.

Statistical Analysis

Statistical tests were performed with Prism (GraphPad). A value of $p < 0.05$ were considered statistically significant. All error bars represent standard error (SD).

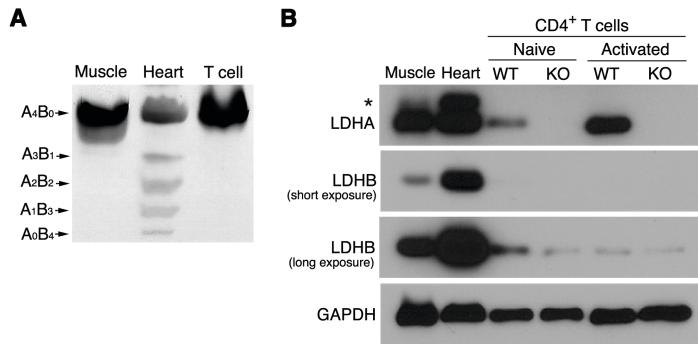


Fig. S1. LDHA is upregulated in CD4⁺ T cells upon TCR stimulation

(A) Zymography of LDH isoenzymes in muscle, heart and activated CD4⁺ T cells (T cell), 4 LDHA and 0 LDHB (A₄B₀), A₃B₁, A₂B₂, A₁B₃, and A₀B₄. (B) Naïve CD4⁺ T cells isolated from wild-type (WT) or CD4^{Cre}*Ldha*^{fl/fl} (KO) mice were left untreated or stimulated with anti-CD3 and anti-CD28 in the presence of IL-2 for 3 days. The expression of LDHA, LDHB and GAPDH were determined by immunoblotting with tissues from muscle and heart as controls. * indicates the LDHB band recognized by the cross-reactive anti-LDHA.

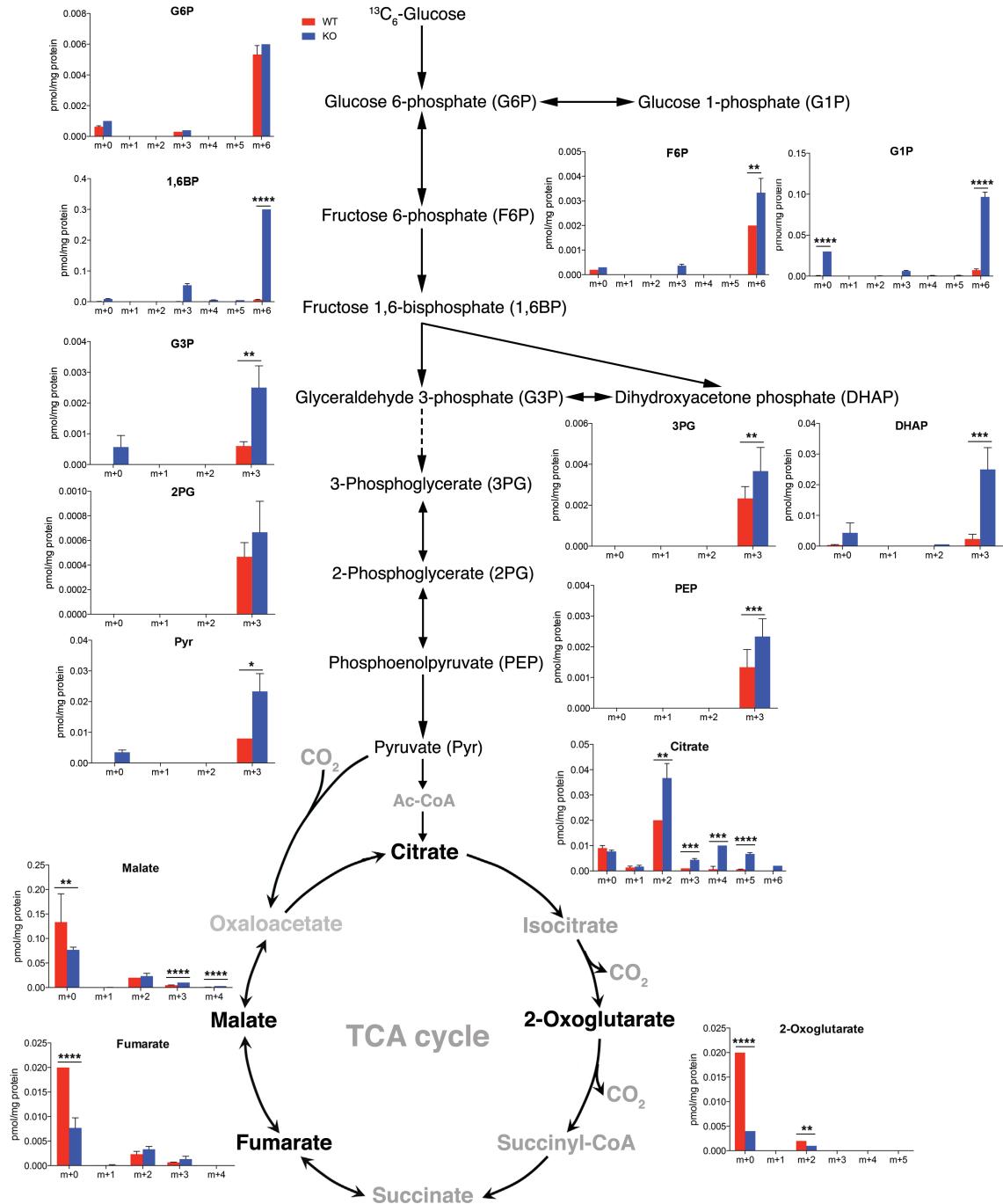


Fig. S2. Metabolic flux analysis of wild-type and LDHA-deficient CD4⁺ T cells

Naïve CD4⁺ T cells isolated from wild-type (WT) or CD4^{Cre} Ldha^{fl/fl} (KO) mice were differentiated under Th1 condition for 3 days. Cells were labeled with ¹³C₆-glucose (10 mM) in glucose-deficient RPMI1640 supplemented with 10% dialyzed FBS and 100 U/ml IL-2 for 2 h. Metabolites were extracted by methanol and analyzed by CE-MS. Data represent mean ± SD, n = 3. Two-tailed unpaired t-test, *P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; ****P ≤ 0.0001.

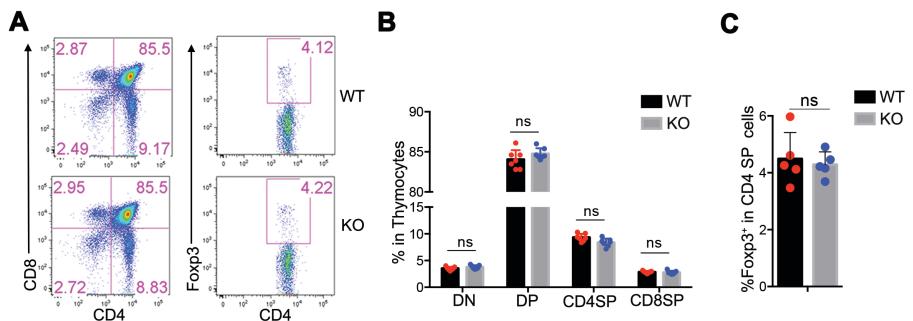


Fig. S3. LDHA deficiency does not affect T cell development in mice

(A) Flow cytometry analysis of CD4 and CD8 expression in thymocytes (left), and Foxp3 expression in CD4⁺CD8⁻ T cells (right) of 8-week-old wild-type (WT) or CD4^{Cre}*Ldha*^{fl/fl} (KO) mice. (B and C) Frequencies of CD4⁺CD8⁻ (DN), CD4⁺CD8⁺ (DP), CD4⁺CD8⁻ (CD4SP), and CD4⁺CD8⁺ (CD8SP) thymocytes (B, n = 7) and Foxp3⁺ regulatory T cells among CD4SP cells (C, n = 5). Data represent mean ± SD. Two-tailed unpaired t-test; ns, not significant.

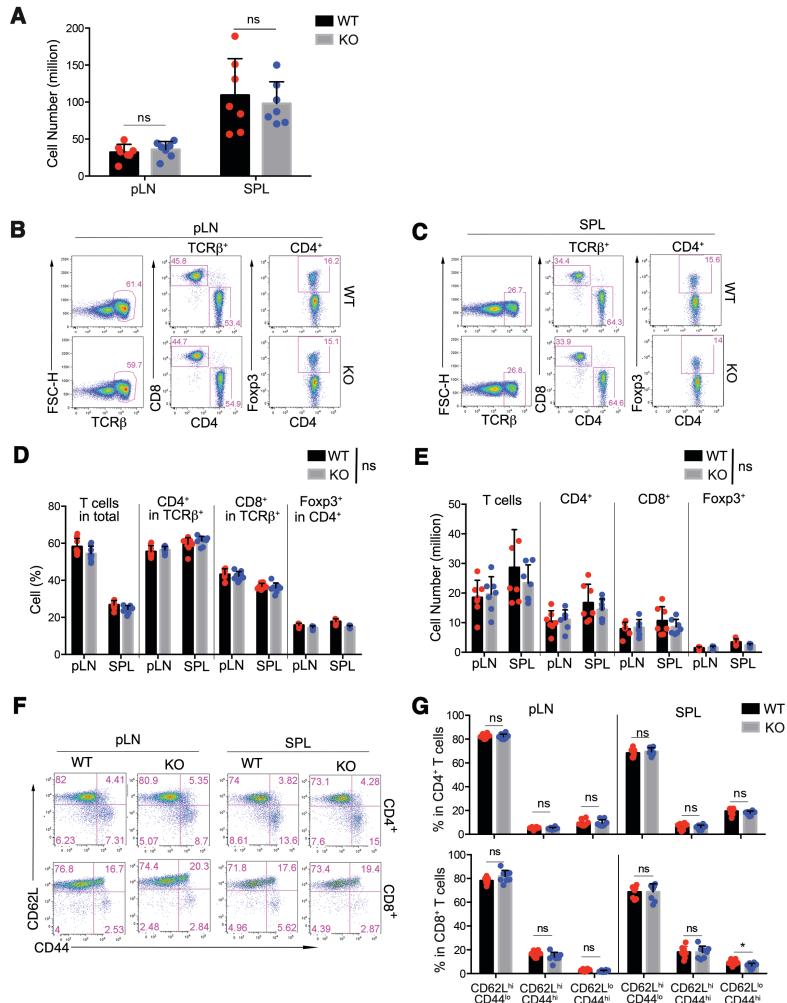


Fig. S4. LDHA deficiency does not substantially affect T cell homeostasis in mice

(A) Total peripheral lymph node (pLN) and spleen (SPL) cell numbers from wild-type (WT) and $CD4^{Cre} Ldha^{fl/fl}$ (KO) mice. Data represent mean \pm SD, n = 7 per genotype. Two-tailed unpaired t-test, ns, not significant. (B - E) Flow cytometry analysis of pLN and SPL T cell populations from WT and KO mice. (B and C) Representative plots of TCR β^+ , CD4 $^{+}$ TCR β^+ , CD8 $^{+}$ TCR β^+ and CD4 $^{+}$ TCR β^+ Foxp3 $^{+}$ T cell populations. (D and E) Frequencies and numbers of TCR β^+ , CD4 $^{+}$ TCR β^+ , CD8 $^{+}$ TCR β^+ and CD4 $^{+}$ TCR β^+ Foxp3 $^{+}$ T cell populations. Data represent mean \pm SD, n = 7 per genotype. Two-tailed unpaired t-test, ns, not significant. (F and G) Flow cytometry analysis of CD44 and CD62L expression in pLN and SPL CD4 $^{+}$ TCR β^+ or CD8 $^{+}$ TCR β^+ T cells. (F) Representative plots of CD44 and CD62L expression. (G) Frequencies of CD4 $^{+}$ (upper) and CD8 $^{+}$ (lower) T cell populations with the indicated activation phenotypes. Data represent mean \pm SD, n = 8 per genotype. Two-tailed unpaired t-test, *P \leq 0.05; ns, not significant.

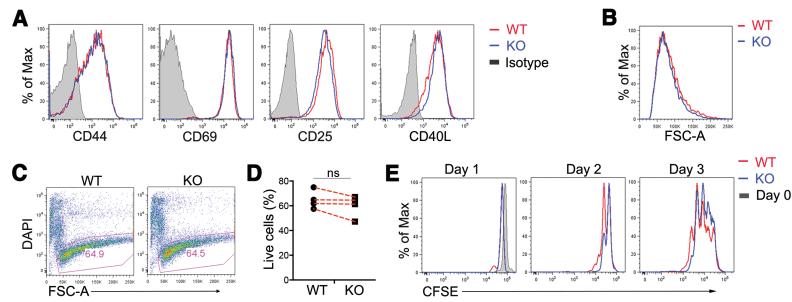


Fig. S5. LDHA is nonessential for CD4⁺ T cell activation, growth, proliferation and survival *in vitro*

(A - D) Naïve CD4⁺ T cells isolated from wild-type (WT) or CD4^{Cre}*Ldha*^{fl/fl} (KO) mice were stimulated with anti-CD3 and anti-CD28 in the presence of IL-2. (A) Flow cytometry analysis of CD44, CD69 and CD25 expression one day post-activation, and CD40L expression 3 days post-activation. (B) Cell size of WT and KO T cells were measured 3 days post-activation. (C and D) Flow cytometry analysis of DAPI staining of WT and KO T cells 3 days post-activation. (C) Representative plots of DAPI staining. (D) Frequencies of DAPI⁻ T cells, n = 4. Two-tailed paired *t*-test, ns, not significant. (E) Naïve CD4⁺ WT and KO T cells were labeled with CFSE and stimulated as in (A). CFSE dilution was examined at day 1, 2 and 3 post-stimulation. Data are representatives of three independent experiments.

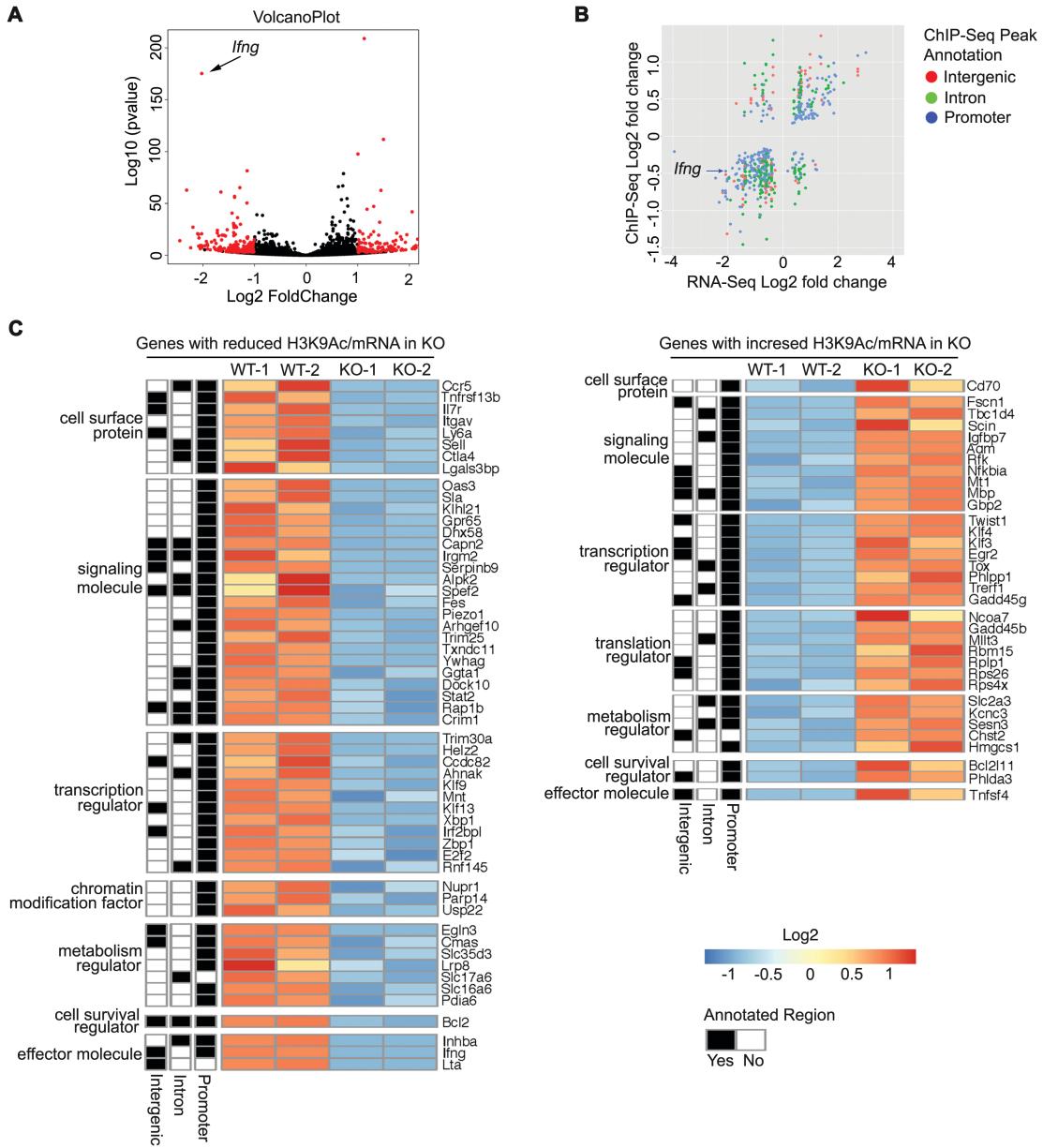


Fig. S6. Genome-wide analysis of LDHA-regulated transcripts in Th1 cells

(A) A volcano plot of transcripts differentially expressed between wild-type (WT) and CD4^{Cre}*Ldha*^{fl/fl} (KO) T cells differentiated under the Th1 condition. Arrow indicates the differentially expressed *Ifng* gene. FDR corrected p value < 0.01. (B) A scatter plot of relative histone acetylation (H3K9Ac) levels of the differentially expressed transcripts between WT and KO Th1 cells. Arrow indicates the differential H3K9Ac at the promoter region of the *Ifng* gene. FDR corrected p value < 0.01. (C) A selected list of genes with either decreased or increased level of mRNA (heat map) and H3K9Ac (black box) in KO Th1 cells compared to those of WT Th1 cells.

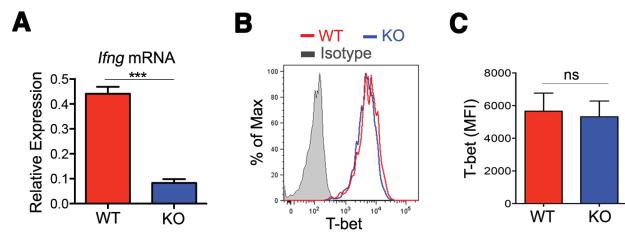


Fig. S7. IFN- γ but not T-bet expression is diminished in LDHA-deficient Th1 cells

(A - C) Naïve wild-type (WT) or CD4^{Cre}*Ldha*^{f/f} (KO) CD4⁺ T cells were differentiated under the Th1 condition for 3 days. (A) IFN- γ mRNA was measured by qPCR and normalized to β -Actin. (B and C) T-bet expression was measured by flow cytometry. Representative plots (B) and statistics (C) are shown. In (A) and (C), data represent mean \pm SD, n = 3. Two-tailed unpaired t-test, ***P \leq 0.001; ns, not significant.

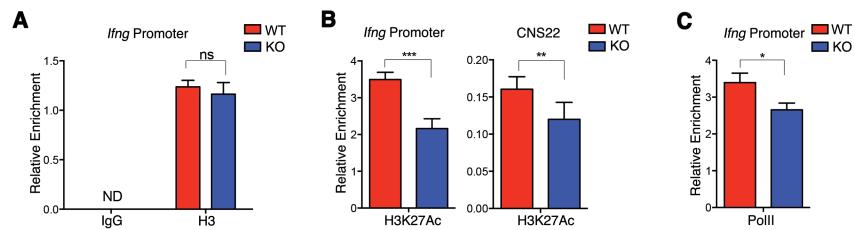


Fig. S8. Acetylation of histone H3 and recruitment of RNA polymerase II to the *Ifng* locus are reduced in LDHA-deficient Th1 cells

(A - C) Naïve wild-type (WT) or CD4^{Cre}*Ldha*^{fl/fl} (KO) CD4⁺ T cells were differentiated under the Th1 condition for 3 days, and subjected to ChIP with a control antibody (IgG) or antibodies against total histone H3 (A), acetylated lysine 27 of histone H3 (H3K27Ac) (B) or RNA polymerase II (PolII) (C). Enrichment was normalized to the *Cd3e* promoter region. Data represent mean ± SD, n = 3. Two-tailed unpaired t-test, *P ≤ 0.05; **P ≤ 0.01; ***P ≤ 0.001; ns, not significant.

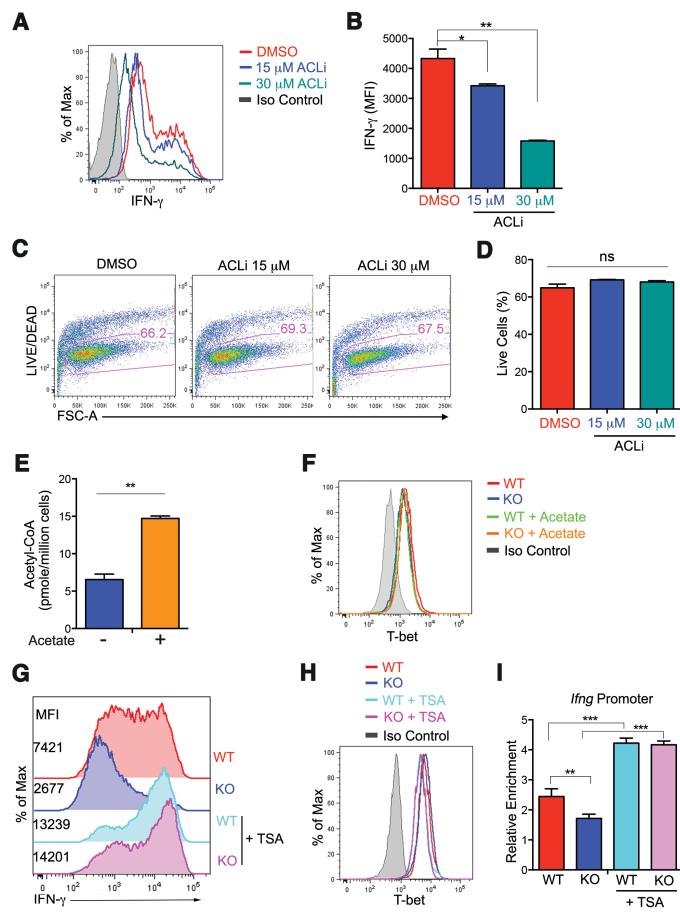


Fig. S9. The ACL inhibitor suppresses, while acetate and the HDAC inhibitor promote IFN- γ expression

(A - D) Naïve CD4 $^{+}$ T cells isolated from wild-type (WT) mice were differentiated under the Th1 condition for 2 days. DMSO or the ATP citrate lyase inhibitor (ACLi, BMS-303141) was added to the culture for another 24 h. Subsequently, cells were restimulated with phorbol myristate acetate (PMA) and ionomycin for 4 h. IFN- γ expression was determined by intracellular staining. A representative plot (A) and statistic analysis (B) are shown. Cell viability was determined by LIVE/DEAD staining. A representative plot (C) and statistic analysis (D) are shown. Data represent mean \pm SD, n = 3. Two-tailed unpaired t-test, *P \leq 0.05; **P \leq 0.01; ns, not significant. (E) Naive CD4 $^{Cre}Ldha^{\text{fl}/\text{fl}}$ (KO) CD4 $^{+}$ T cells were differentiated under the Th1 condition for 2 days, and cells were replated in fresh medium with or without 20 mM sodium acetate for another 24 h. Acetyl-CoA levels were measured by an acetyl-CoA assay kit. Data represent mean \pm SD, n = 3. Two-tailed unpaired t-test, **P \leq 0.01. (F) Naïve CD4 $^{+}$ T cells isolated from WT or KO mice were differentiated under the Th1 condition for 3 days. Cells were further cultured in the absence or presence of 20 mM sodium acetate for another 24 h, followed by restimulated with PMA and ionomycin for 4 h. The expression of T-bet was determined by flow cytometry. (G and H) Naïve CD4 $^{+}$ T cells isolated from WT or KO mice were differentiated under the Th1 condition for 3 days. Cells were further cultured in the absence or presence of 30 nM TSA for another 24 h, followed by restimulated with PMA and ionomycin for 4 h. The expression of IFN- γ (G) and T-bet (H) were determined by flow cytometry. The mean fluorescence intensity (MFI) of IFN- γ is shown in (G). (I) Cells were cultured as in (G) and H3K9Ac at the *Ifng* promoter region was assessed by ChIP-qPCR. Enrichment was normalized to H3K9Ac at the *Cd3e* promoter region. Data represent mean \pm SD, n = 4. Two-tailed unpaired t-test, **P \leq 0.01; ***P \leq 0.001; ns, not significant.

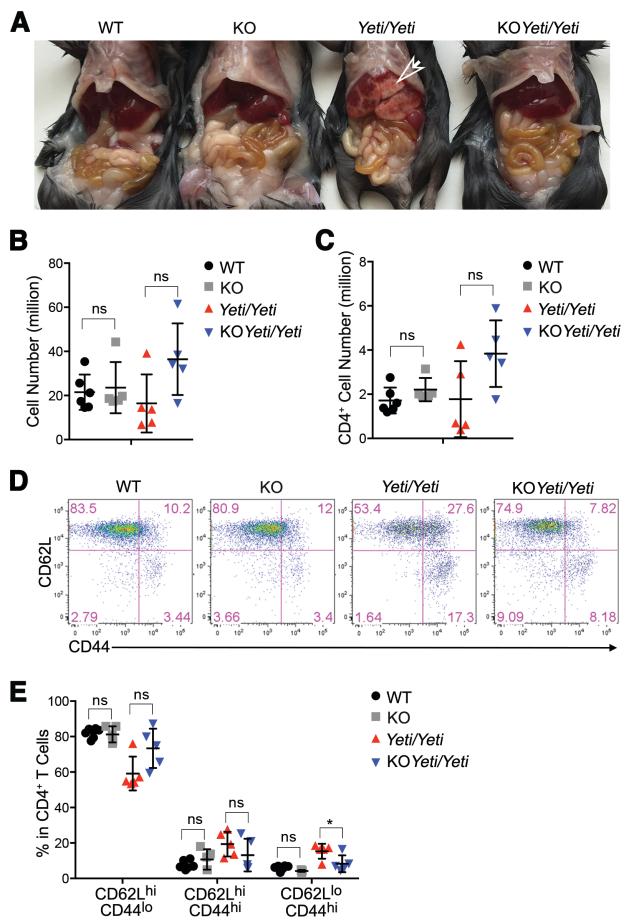


Fig. S10. LDHA promotes IFN- γ expression in the absence of its 3'UTR *in vivo*
(A) Representative images of livers from wild-type (WT), CD4^{Cre}*Ldha*^{fl/fl} (KO), Yeti/Yeti and CD4^{Cre}*Ldha*^{fl/fl}Yeti/Yeti (KO Yeti/Yeti) mice. Arrows indicate the damaged liver in Yeti/Yeti mice. **(B and C)** Total cell numbers (**B**) and CD4⁺ T cell numbers (**C**) from spleens of WT, KO, Yeti/Yeti and KO Yeti/Yeti mice. Data represent mean \pm SD, n = 4 - 5 per genotype. Two-tailed unpaired *t*-test, ns, not significant. **(D and E)** Flow cytometry analysis of CD44 and CD62L expression in CD4⁺ T cells from WT, KO, Yeti/Yeti and KO Yeti/Yeti mice. **(D)** Representative plots of CD44 and CD62L expression. **(E)** Frequencies of CD4⁺ T cell populations with the indicated activation phenotypes, data represent mean \pm SD, n = 4 - 5 per genotype. Two-tailed unpaired *t*-test, *P \leq 0.05; ns, not significant.

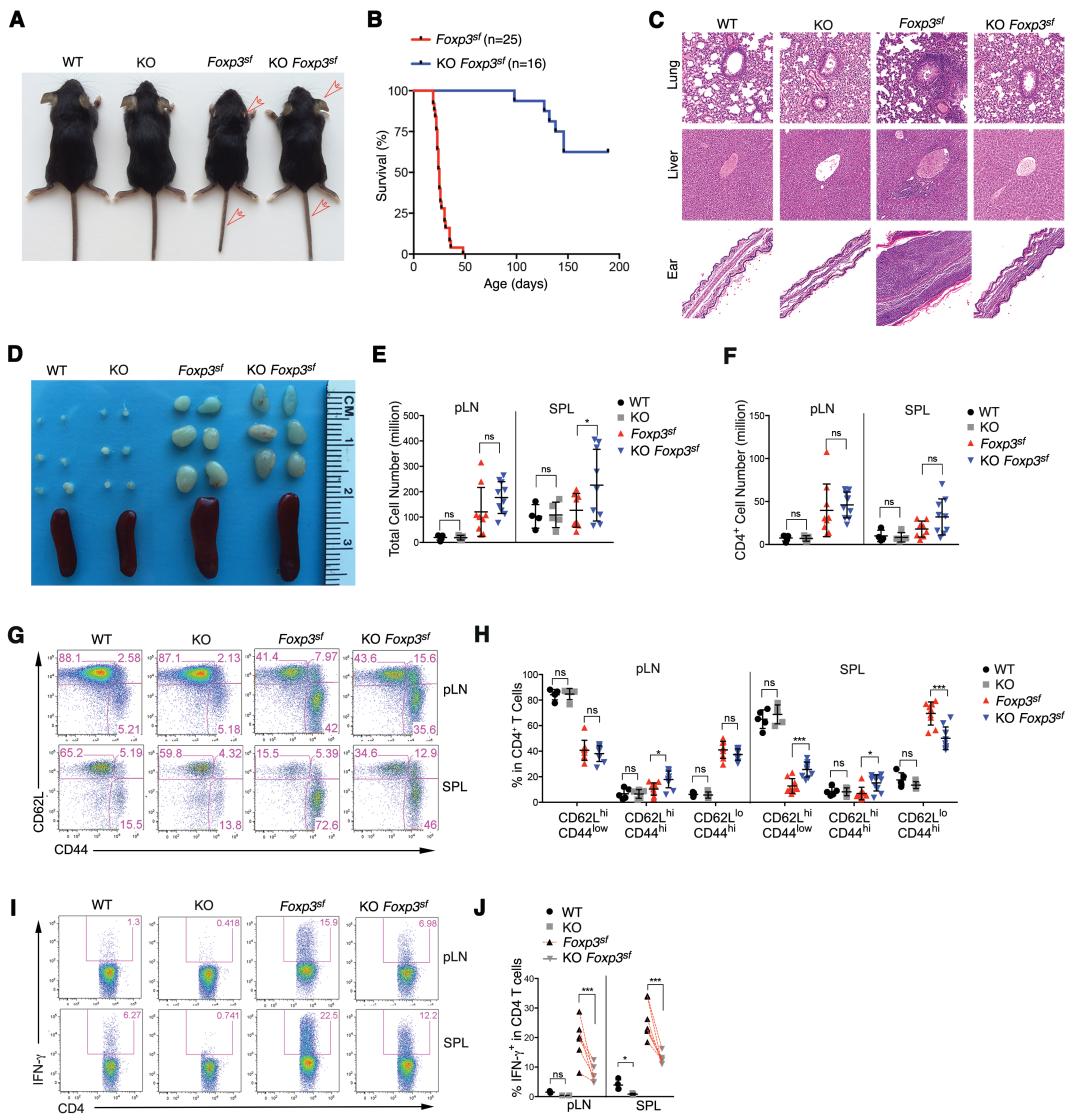


Fig. S11. LDHA deficiency in T cells attenuates the autoimmune phenotype of Scurfy mice

(A) A representative image of 21-day-old wild-type (WT), CD4^{Cre}*Ldha*^{fl/fl} (KO), *Foxp3*^{sf} and CD4^{Cre}*Ldha*^{fl/fl}*Foxp3*^{sf} (KO *Foxp3*^{sf}) mice. Arrows indicate the scurfy tails and ears of *Foxp3*^{sf} mice, which were rescued in KO *Foxp3*^{sf} mice. (B) The survival curve of *Foxp3*^{sf} (n = 25) and KO *Foxp3*^{sf} (n = 16) mice. (C) Representative haematoxylin and eosin (H&E) staining of sections from the lung, liver and ear of WT, KO, *Foxp3*^{sf} and KO *Foxp3*^{sf} mice. (D) A representative image of peripheral lymph nodes and spleens of 21-day-old WT, KO, *Foxp3*^{sf} and KO *Foxp3*^{sf} mice. (E and F) Total cell numbers (E) and CD4⁺ T cell numbers (F) from peripheral lymph nodes (pLN) and spleens (SPL) of WT, KO, *Foxp3*^{sf} and KO *Foxp3*^{sf} mice, data represent mean ± SD, n = 4 - 9 per genotype. Two-tailed unpaired t-test, *P ≤ 0.05; ns, not significant. (G and H) Flow cytometry analysis of CD44 and CD62L expression in CD4⁺ T cells from WT, KO, *Foxp3*^{sf} and KO *Foxp3*^{sf} mice. (G) Representative plots of CD44 and CD62L expression. (H) Frequencies of CD4⁺ T cell populations with the indicated activation phenotypes, data represent mean ± SD, n = 4 - 9 per genotype. Two-tailed unpaired t-test, *P ≤ 0.05; ***P ≤ 0.001; ns, not significant. (I and J) CD4⁺ T cells from peripheral pLN or spleens SPL of WT, KO, *Foxp3*^{sf} and KO *Foxp3*^{sf} mice were stimulated with PMA and ionomycin for 4 h. IFN-γ expression was determined by flow cytometry. Representative plots (I) and paired analyses (J) are shown. Data represent mean ± SD, n = 2 - 7 per genotype. Two-tailed paired t-test, *P ≤ 0.05; ***P ≤ 0.001; ns, not significant.

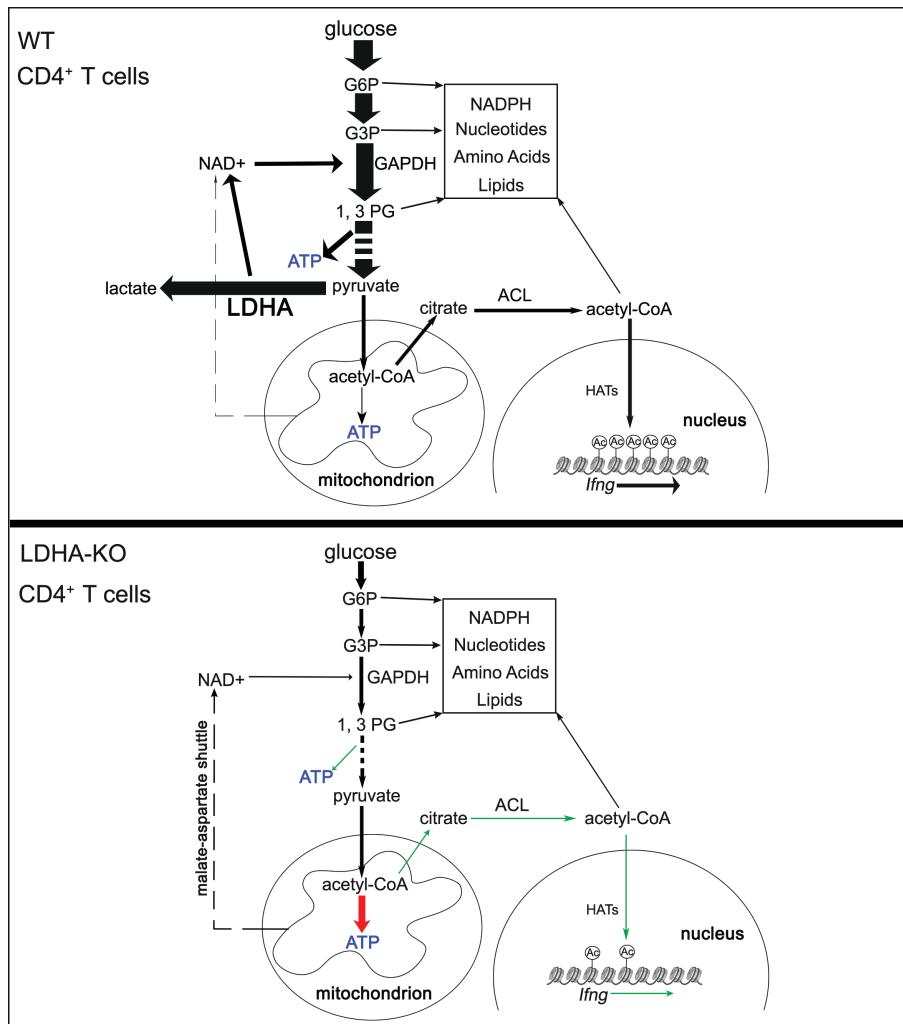


Fig. S12. An epigenetic model of aerobic glycolysis in the control of IFN- γ expression

A major role of LDHA-mediated aerobic glycolysis in activated CD4 $^{+}$ T cells is to maintain glycolytic production of ATP, which relieves the burden of mitochondria as an energy house to burn acetyl-CoA to generate ATP. As a result, acetyl-CoA can be readily used as a substrate for histone acetyltransferases (HATs) for epigenetic regulation of target genes including *Ifng*. In the absence of LDHA, glucose consumption is reduced and more acetyl-CoA is oxidized in the mitochondria to generate ATP, leading to reduced nucleocytosolic acetyl-CoA for histone acetylation and attenuated transcription of target genes.

Table S1: Differentially expressed transcripts between wild-type (WT) and LDHA-deficient (KO) Th1 cells

Log2 FoldChange (Log2FC) of KO to WT
p_adj (FDR corrected p value), p<0.01

Ensembl ID	Gene	Biotype	Orthologous_human_gene	log2FC	p_value	p_adj
ENSMUSG00000063229	Ldha	protein_coding	LDHA	-3.944942913	9.4493E-145	3.0855E-141
ENSMUSG00000085498	Gm14023	processed_transcript		-2.756247724	1.6009E-23	2.85135E-21
ENSMUSG00000032661	Oas3	protein_coding	OAS3	-2.47410952	8.52991E-15	6.33023E-13
ENSMUSG00000041324	Inhba	protein_coding	INHBA	-2.315116811	1.50528E-63	1.34052E-60
ENSMUSG00000089672	Gp49a	protein_coding	LILRAS5	-2.236644879	5.80131E-08	1.56988E-06
ENSMUSG00000035105	Egln3	protein_coding	EGLN3	-2.192556125	8.9266E-28	2.08202E-25
ENSMUSG00000046806	3110062M04Rik	protein_coding	C7orf49	-2.101471271	1.52414E-21	2.33288E-19
ENSMUSG00000027456	Sdcbp2	protein_coding	SDCBP2	-2.085251598	7.07552E-21	9.36646E-19
ENSMUSG00000079227	Ccr5	protein_coding	CCR2	-2.081421438	1.83591E-09	6.78664E-08
ENSMUSG00000010142	Tnfrsf13b	protein_coding	TNFRSF13B	-2.075543704	1.87794E-17	1.83963E-15
ENSMUSG00000062593	Lilrb4	protein_coding	LILRB3	-2.051438433	4.27553E-10	1.75267E-08
ENSMUSG00000026828	Galnt5	protein_coding	GALNT5	-2.050047399	5.25607E-07	1.18364E-05
ENSMUSG00000003882	Il7r	protein_coding	IL7R	-2.02669661	4.27612E-10	1.75267E-08
ENSMUSG00000086373	Gm11978	pseudogene		-2.023535034	1.66498E-21	2.50925E-19
ENSMUSG00000055170	Ifng	protein_coding	IFNG	-2.02207524	5.2037E-176	2.5488E-172
ENSMUSG00000098482	mmu-mir-6363	miRNA		-2.015384294	2.61658E-08	7.6387E-07
ENSMUSG00000024074	Crim1	protein_coding	CRIM1	-1.961438311	6.67726E-10	2.66981E-08
ENSMUSG00000043279	Trim56	protein_coding	TRIM56	-1.932898023	4.48862E-14	3.11847E-12
ENSMUSG00000039646	Vasn	protein_coding	VASN	-1.914337917	1.93732E-11	9.73229E-10
ENSMUSG00000034584	Exph5	protein_coding	EXPH5	-1.911321917	9.97738E-07	2.11098E-05
ENSMUSG00000030921	Trim30a	protein_coding	TRIM5	-1.908524537	4.47567E-10	1.82682E-08
ENSMUSG00000024168	Tmem204	protein_coding	TMEM204	-1.858383812	5.37922E-06	9.68655E-05
ENSMUSG00000021886	Gpr65	protein_coding	GPR65	-1.833981342	1.4166E-13	9.44013E-12
ENSMUSG00000041046	Ramp3	protein_coding	RAMP3	-1.779871567	2.6421E-08	7.68012E-07
ENSMUSG00000024402	Lta	protein_coding	LTA	-1.773435612	3.35697E-15	2.56913E-13
ENSMUSG00000084834	4930565N06Rik	antisense		-1.762000656	1.12878E-06	2.36273E-05
ENSMUSG00000023017	Asic1	protein_coding	ASIC1	-1.744807733	5.5845E-06	0.00010001
ENSMUSG00000038894	Irs2	protein_coding	IRS2	-1.744668255	3.58266E-12	1.99407E-10
ENSMUSG00000027580	Helz2	protein_coding	HELZ2	-1.721652811	2.47296E-22	4.03752E-20
ENSMUSG00000072109	A530040E14Rik	antisense		-1.719944345	8.8735E-25	1.7385E-22
ENSMUSG00000028364	Tnc	protein_coding	TNC	-1.697518509	2.99626E-07	7.0387E-06
ENSMUSG00000017830	Dhx58	protein_coding	DHX58	-1.69497974	3.8278E-05	0.000547404
ENSMUSG00000028114	Mettl14	protein_coding	METTL14	-1.692340064	1.53075E-19	1.72359E-17
ENSMUSG00000078763	Slfn1	protein_coding	SLFN12L	-1.681608284	1.1969E-05	0.00019574
ENSMUSG00000078763	Slfn1	protein_coding	SLFN12	-1.681608284	1.1969E-05	0.00019574
ENSMUSG00000018914	Il3	protein_coding		-1.676405836	2.83372E-08	8.21275E-07
ENSMUSG00000030282	Cmas	protein_coding	CMAS	-1.661223236	6.61287E-09	2.22611E-07
ENSMUSG00000054006	D630008O14Rik	antisense		-1.651365627	1.03893E-61	7.82874E-59
ENSMUSG00000050473	Slc35d3	protein_coding	SLC35D3	-1.641758714	7.75897E-05	0.001009387
ENSMUSG0000001131	Timp1	protein_coding	TIMP1	-1.636417441	1.60747E-15	1.28023E-13
ENSMUSG00000020787	Itgav	protein_coding	ITGAV	-1.626293014	3.45607E-20	4.23196E-18
ENSMUSG00000020715	Ern1	protein_coding	ERN1	-1.624330967	9.59724E-07	2.03495E-05
ENSMUSG00000020401	Fam71b	protein_coding	FAM71B	-1.585892554	6.17061E-20	7.37162E-18
ENSMUSG00000039234	Sec24d	protein_coding	SEC24D	-1.583593459	1.967E-07	4.80517E-06
ENSMUSG00000022372	Sla	protein_coding	SLA	-1.562449812	2.25494E-19	2.51016E-17
ENSMUSG00000026420	Il24	protein_coding	IL24	-1.548926109	0.000291079	0.003112897
ENSMUSG00000089824	Rbm12	protein_coding	RBM12	-1.548624386	0.000201395	0.002273819
ENSMUSG00000079455	Gm16026	pseudogene		-1.529140669	1.53066E-05	0.000244607
ENSMUSG00000032513	Gorasp1	protein_coding	GORASP1	-1.528901927	2.35265E-25	4.80136E-23
ENSMUSG00000020027	Socs2	protein_coding	SOCS2	-1.525214186	0.000235348	0.00258751
ENSMUSG00000030717	Nupr1	protein_coding	NUPR1	-1.5052195	0.00040309	0.004164829
ENSMUSG00000034422	Parp14	protein_coding	PARP14	-1.502717361	5.72528E-08	1.5536E-06
ENSMUSG00000092274	Neat1	lincRNA		-1.500777194	4.40287E-06	8.03175E-05
ENSMUSG00000032845	Alpk2	protein_coding	ALPK2	-1.497896507	3.48209E-05	0.000505342
ENSMUSG00000028613	Lrp8	protein_coding	LRP8	-1.490525846	9.27209E-05	0.001170482
ENSMUSG00000049225	Pdp1	protein_coding	PDP1	-1.48692222	0.000236132	0.002593221
ENSMUSG00000090576	Gm17055	lincRNA		-1.483721909	2.42655E-07	5.78356E-06
ENSMUSG00000015243	Abca1	protein_coding	ABCA1	-1.465254874	1.13682E-10	4.99385E-09
ENSMUSG00000085269	Gm15777	antisense		-1.462906641	2.01889E-05	0.000313922
ENSMUSG00000096938	9530052E02Rik	lincRNA		-1.457508833	2.48337E-08	7.32743E-07
ENSMUSG00000036327	Qsox2	protein_coding	QSOX2	-1.457192466	0.000135023	0.001622923
ENSMUSG00000072663	Spef2	protein_coding	SPEF2	-1.452337061	0.000437595	0.004456004
ENSMUSG00000059713	Rcan3	protein_coding	RCAN3	-1.451648201	2.43408E-06	4.72163E-05
ENSMUSG00000030500	Slc17a6	protein_coding	SLC17A6	-1.449052488	1.45047E-06	2.97255E-05
ENSMUSG00000038181	Chpf2	protein_coding	CHPF2	-1.447925458	2.63866E-07	6.24356E-06
ENSMUSG00000001741	Il16	protein_coding	IL16	-1.442169147	9.34999E-09	3.04294E-07
ENSMUSG00000097567	Gm26637	lincRNA		-1.441796345	4.02998E-08	1.13117E-06

ENSMUSG00000039985	Fam60a	protein_coding	FAM60A	-1.439207609	3.70493E-05	0.000531383
ENSMUSG0000028949	Smarcd3	protein_coding	SMARCD3	-1.434644221	2.21632E-41	9.0463E-39
ENSMUSG0000026107	Nabp1	protein_coding	NABP1	-1.429601113	1.1249E-07	2.85479E-06
ENSMUSG0000023393	Slc17a9	protein_coding	SLC17A9	-1.426088796	5.91278E-05	0.000801129
ENSMUSG0000073700	Klhl21	protein_coding	KLHL21	-1.422273924	4.34275E-06	7.93687E-05
ENSMUSG0000086937	Gm15063	antisense		-1.416246002	7.4944E-10	2.96029E-08
ENSMUSG0000050390	C77080	protein_coding	KIAA1522	-1.412044171	5.21976E-05	0.000719167
ENSMUSG0000028063	Lmna	protein_coding	LMNA	-1.409473505	4.05201E-08	1.1341E-06
ENSMUSG0000086886	Gm15135	antisense		-1.406764373	1.09413E-07	2.78391E-06
ENSMUSG0000034163	Zfc3h1	protein_coding	ZFC3H1	-1.40647365	2.10104E-31	5.88052E-29
ENSMUSG0000026980	Ly75	protein_coding	LY75	-1.403269968	1.37963E-22	2.33015E-20
ENSMUSG0000026980	Ly75	protein_coding	LY75-CD302	-1.403269968	1.37963E-22	2.33015E-20
ENSMUSG0000090946	Ccdc71l	protein_coding	CCDC71L	-1.401113505	1.19546E-19	1.39413E-17
ENSMUSG0000097242	Gm16907	lincRNA		-1.401075882	1.59483E-29	4.00588E-27
ENSMUSG0000045767	B230219D22Rik	protein_coding	C5orf24	-1.400968673	7.97557E-09	2.65744E-07
ENSMUSG0000046223	Plaur	protein_coding	PLAUR	-1.399371377	0.000598904	0.00578016
ENSMUSG0000028362	Tnfsf8	protein_coding	TNFSF8	-1.397376753	1.87264E-27	4.16917E-25
ENSMUSG0000070327	Rnf213	protein_coding	RNF213	-1.396552321	2.15657E-07	5.21624E-06
ENSMUSG0000026509	Capn2	protein_coding	CAPN2	-1.395011313	7.45557E-11	3.38124E-09
ENSMUSG0000069874	Irgm2	protein_coding	IRGM	-1.38842734	0.000491711	0.004905093
ENSMUSG0000031072	Oraov1	protein_coding	ORAOV1	-1.387404554	3.42266E-06	6.42102E-05
ENSMUSG0000045362	Tnfrsf26	protein_coding		-1.386178398	0.000571625	0.005560713
ENSMUSG0000022565	Plec	protein_coding	PLEC	-1.386131888	1.63874E-57	1.14665E-54
ENSMUSG0000045827	Serpinb9	protein_coding	SERPINB9	-1.385336993	1.03283E-09	4.01492E-08
ENSMUSG0000046027	Stard5	protein_coding	STARD5	-1.385172831	1.15078E-56	7.51535E-54
ENSMUSG0000079084	Ccdc82	protein_coding	CCDC82	-1.381797498	0.000372938	0.003874129
ENSMUSG0000026830	Ermn	protein_coding	ERMN	-1.377799726	0.000523542	0.00516477
ENSMUSG0000069833	Ahnak	protein_coding	AHNAK	-1.37295579	3.75064E-29	8.96129E-27
ENSMUSG0000097242	Gm26850	lincRNA		-1.369930803	7.40986E-21	9.67826E-19
ENSMUSG0000053158	Fes	protein_coding	FES	-1.369142417	3.65162E-05	0.000525275
ENSMUSG0000033863	Klf9	protein_coding	KLF9	-1.368600689	0.000196201	0.002227103
ENSMUSG0000057329	Bcl2	protein_coding	BCL2	-1.357479508	1.15583E-13	7.75512E-12
ENSMUSG0000026131	Dst	protein_coding	DST	-1.353764208	3.91845E-07	9.09599E-06
ENSMUSG0000027002	Nckap1	protein_coding	NCKAP1	-1.350446672	5.50636E-07	1.23202E-05
ENSMUSG0000075602	Ly6a	protein_coding		-1.350382178	1.682E-10	7.16384E-09
ENSMUSG0000000282	Mnt	protein_coding	MNT	-1.348735768	8.62018E-07	1.86272E-05
ENSMUSG0000084984	170006P19Rik	antisense		-1.347589285	1.09226E-27	2.48833E-25
ENSMUSG0000030759	Far1	protein_coding	FAR1	-1.343429493	5.68575E-10	2.29208E-08
ENSMUSG0000074647	Fam83c	protein_coding	FAM83C	-1.340504712	0.000929507	0.008338325
ENSMUSG0000020610	Amz2	protein_coding	AMZ2	-1.328527598	5.51935E-37	1.93099E-34
ENSMUSG0000097322	A530083120Rik	lincRNA		-1.324449996	0.0004909	0.004901993
ENSMUSG0000066057	Gm1976	lincRNA		-1.324424884	2.71998E-06	5.23477E-05
ENSMUSG0000020397	Med7	protein_coding	MED7	-1.320596896	3.12711E-11	1.4943E-09
ENSMUSG0000024687	Osbp	protein_coding	OSBP	-1.316245578	1.13592E-07	2.87531E-06
ENSMUSG0000021706	Zfyve16	protein_coding	ZFYVE16	-1.314094442	0.001119685	0.009749719
ENSMUSG0000031756	Cenpn	protein_coding	CENPN	-1.308288826	6.17307E-06	0.00010955
ENSMUSG0000024691	Fam111a	protein_coding	FAM111A	-1.305887287	0.001045793	0.009204481
ENSMUSG0000013698	Pea15a	protein_coding	PEA15	-1.295805165	0.000223977	0.002481993
ENSMUSG0000026728	Vim	protein_coding	VIM	-1.28416451	5.98932E-66	5.86714E-63
ENSMUSG0000087633	Gm14455	processed_transcript		-1.281933084	3.60939E-05	0.00052073
ENSMUSG0000052040	Klf13	protein_coding	KLF13	-1.276961987	1.36526E-14	1.00557E-12
ENSMUSG0000014444	Piez01	protein_coding	PIEZO1	-1.272990821	1.333E-30	3.62724E-28
ENSMUSG0000024079	Eif2ak2	protein_coding	EIF2AK2	-1.25803851	1.6086E-05	0.000256225
ENSMUSG0000026504	Sdccag8	protein_coding	SDCCAG8	-1.25578906	8.30964E-05	0.001065461
ENSMUSG0000038648	Creb3l2	protein_coding	CREB3L2	-1.252159416	0.000430203	0.004389867
ENSMUSG0000023952	Gtpbp2	protein_coding	GTPBP2	-1.247302114	2.07298E-06	4.07769E-05
ENSMUSG0000053012	Krcc1	protein_coding	KRCC1	-1.237518946	0.000485788	0.004865828
ENSMUSG0000087097	4930586N03Rik	processed_transcript		-1.226304116	0.00039291	0.004077269
ENSMUSG0000092060	Bend4	protein_coding	BEND4	-1.224317716	0.000142313	0.001695983
ENSMUSG0000028179	Cth	protein_coding	CTH	-1.221832153	0.000547467	0.005368357
ENSMUSG0000050148	Ubqln2	protein_coding	UBQLN2	-1.217548659	9.49123E-07	2.01683E-05
ENSMUSG0000071176	Arhgef10	protein_coding	ARHGEF10	-1.21149689	9.52055E-10	3.73053E-08
ENSMUSG0000053081	1700069B07Rik	protein_coding		-1.210967364	0.000999802	0.008855386
ENSMUSG0000029782	Tmem209	protein_coding	TMEM209	-1.210087954	0.00027501	0.00297023
ENSMUSG0000020484	Xbp1	protein_coding	XBP1	-1.207620556	4.10171E-14	2.87002E-12
ENSMUSG0000044258	Ctla2a	protein_coding		-1.207456092	8.49939E-06	0.00014372
ENSMUSG0000037972	Snn	protein_coding	SNN	-1.197461075	0.000585546	0.005684619
ENSMUSG0000087107	Al662270	lincRNA		-1.195755703	8.05923E-05	0.001037428
ENSMUSG0000019132	BC005537	protein_coding	C6orf62	-1.194077054	3.92062E-13	2.47783E-11
ENSMUSG0000036002	Fam214b	protein_coding	FAM214B	-1.184515282	0.000607592	0.005852475
ENSMUSG0000040249	Lrp1	protein_coding	LRP1	-1.184493495	5.5837E-05	0.00076181
ENSMUSG0000029234	Tmem165	protein_coding	TMEM165	-1.180863869	3.43865E-08	9.84532E-07
ENSMUSG0000097030	Gm26693	lincRNA		-1.179523633	0.001013612	0.008969592
ENSMUSG0000020986	Sec23a	protein_coding	SEC23A	-1.17757737	0.000106409	0.001317808

ENSMUSG00000016128	Stard13	protein_coding	STARD13	-1.175386152	0.000372683	0.003874129
ENSMUSG0000025743	Sdc3	protein_coding	SDC3	-1.175141449	0.000169139	0.00197977
ENSMUSG0000016477	E2f3	protein_coding	E2F3	-1.167780461	2.93742E-05	0.000438643
ENSMUSG0000024197	Plin3	protein_coding	PLIN3	-1.167442037	7.97749E-05	0.001030969
ENSMUSG0000026070	Il18r1	protein_coding	IL18R1	-1.167163754	6.89003E-05	0.000912091
ENSMUSG0000072621	Slfn10-ps	pseudogene		-1.160358602	0.000131048	0.001580966
ENSMUSG0000048279	Sacs	protein_coding	SACS	-1.158551233	2.91482E-05	0.000436599
ENSMUSG0000000275	Trim25	protein_coding	TRIM25	-1.15729693	3.06866E-09	1.10112E-07
ENSMUSG0000021156	Zmynd11	protein_coding	ZMYND11	-1.156368166	3.04552E-05	0.000452029
ENSMUSG0000085438	170002014Rik	lincRNA		-1.152751497	1.44154E-05	0.000232259
ENSMUSG0000043091	Tuba1c	protein_coding	TUBA1C	-1.152353103	1.68132E-05	0.000266509
ENSMUSG0000034871	Fam151a	protein_coding	FAM151A	-1.149828448	2.0285E-06	3.99824E-05
ENSMUSG0000022498	Txndc11	protein_coding	TXNDC11	-1.149512166	6.92244E-06	0.000120662
ENSMUSG0000086196	Gm13571	antisense		-1.146664134	4.18601E-51	2.27812E-48
ENSMUSG0000051391	Ywhag	protein_coding	YWHAG	-1.145479901	4.97699E-18	4.97496E-16
ENSMUSG0000049482	Ctu2	protein_coding	CTU2	-1.143413214	3.20982E-82	5.24056E-79
ENSMUSG0000042675	Ypel3	protein_coding	YPEL3	-1.141550097	0.000495963	0.00494248
ENSMUSG0000041528	Rnf123	protein_coding	RNF123	-1.137385763	5.17032E-17	4.77816E-15
ENSMUSG0000026581	Sell	protein_coding	SELL	-1.133418948	6.42696E-07	1.41753E-05
ENSMUSG0000038608	Dock10	protein_coding	DOCK10	-1.129810014	1.74311E-18	1.83607E-16
ENSMUSG0000035778	Ggt1	protein_coding		-1.119835318	1.57087E-05	0.000250623
ENSMUSG0000097224	Gm26716	antisense		-1.119259784	6.48177E-08	1.7396E-06
ENSMUSG0000095332	Gm9821	protein_coding		-1.117816667	5.50862E-07	1.23202E-05
ENSMUSG0000038991	Txndc5	protein_coding	TXNDC5	-1.117214195	1.18642E-06	2.46756E-05
ENSMUSG0000047036	Zfp445	protein_coding	ZNF445	-1.116598786	0.000792424	0.007297031
ENSMUSG0000069094	Pde7a	protein_coding	PDE7A	-1.113010904	2.39684E-11	1.18583E-09
ENSMUSG0000024493	Lars	protein_coding	LARS	-1.112512785	9.33996E-08	2.4141E-06
ENSMUSG0000026970	Rbms1	protein_coding	RBMS1	-1.111543996	1.06392E-10	4.71592E-09
ENSMUSG0000057335	Cep170	protein_coding	CEP170	-1.10865063	1.51688E-05	0.0002428
ENSMUSG0000070034	Sp110	protein_coding	SP110	-1.105946492	9.54564E-09	3.08611E-07
ENSMUSG0000041920	Slc16a6	protein_coding	SLC16A6	-1.105781603	1.14097E-06	2.38313E-05
ENSMUSG0000020668	Kif3c	protein_coding	KIF3C	-1.101985116	1.22846E-11	6.33366E-10
ENSMUSG0000083672	Gm9183	pseudogene		-1.10062127	4.7837E-08	1.32003E-06
ENSMUSG0000034168	Irf2bp1	protein_coding	IRF2BPL	-1.099201708	7.70287E-06	0.000132614
ENSMUSG0000024276	Zfp397	protein_coding	ZNF397	-1.097002858	0.000122143	0.00149377
ENSMUSG0000031600	Vps37a	protein_coding	VPS37A	-1.096538085	1.26259E-06	2.61488E-05
ENSMUSG0000034243	Golg61	protein_coding	GOLGB1	-1.095260291	1.6462E-09	6.20238E-08
ENSMUSG0000030254	Rad18	protein_coding	RAD18	-1.095230253	6.07524E-05	0.000818612
ENSMUSG0000042202	Slc35e2	protein_coding	SLC35E2B	-1.091138581	6.60705E-05	0.000882984
ENSMUSG0000097839	Gm26909	lincRNA		-1.081833971	0.000306128	0.0032596
ENSMUSG0000027514	Zbp1	protein_coding	ZBP1	-1.08044189	3.69535E-05	0.000530787
ENSMUSG0000048721	Fndc9	protein_coding	FNDC9	-1.079161206	2.76908E-13	1.79642E-11
ENSMUSG0000062944	9130023H24Rik	protein_coding	ZNF696	-1.07675523	4.04427E-05	0.000574392
ENSMUSG0000030061	Uba3	protein_coding	UBA3	-1.075510807	9.16743E-05	0.001161761
ENSMUSG0000029228	Lnx1	protein_coding	LNX1	-1.072345308	1.92926E-05	0.000301421
ENSMUSG0000041831	Sytl3	protein_coding	SYTL3	-1.070191093	1.81328E-05	0.000285119
ENSMUSG0000018405	Mrm1	protein_coding	MRM1	-1.06945411	0.000114531	0.001409804
ENSMUSG0000020571	Pdia6	protein_coding	PDIA6	-1.068244009	3.5718E-10	1.48891E-08
ENSMUSG0000029634	Rnf6	protein_coding	RNF6	-1.062929194	0.00041915	0.004299469
ENSMUSG0000020954	Strn3	protein_coding	STRN3	-1.058103057	0.000455907	0.004614002
ENSMUSG0000029635	Cdk8	protein_coding	CDK8	-1.057895409	6.70263E-05	0.000893319
ENSMUSG0000084979	Gm16267	lincRNA		-1.057600658	0.000588771	0.005699206
ENSMUSG0000039220	Ppp1r10	protein_coding	PPP1R10	-1.056866719	9.84262E-08	2.53066E-06
ENSMUSG0000019726	Lyst	protein_coding	LYST	-1.052591598	0.000286951	0.003075458
ENSMUSG0000026011	Ctla4	protein_coding	CTLA4	-1.049954448	6.81601E-11	3.14951E-09
ENSMUSG0000018983	E2f2	protein_coding	E2F2	-1.04672581	0.000164093	0.001929716
ENSMUSG000000982	Ccl3	protein_coding	CCL3L1	-1.045414696	3.24212E-11	1.54174E-09
ENSMUSG000000982	Ccl3	protein_coding	CCL3L3	-1.045414696	3.24212E-11	1.54174E-09
ENSMUSG000000982	Ccl3	protein_coding	CCL3	-1.045414696	3.24212E-11	1.54174E-09
ENSMUSG000000982	Ccl3	protein_coding	CCL18	-1.045414696	3.24212E-11	1.54174E-09
ENSMUSG0000031976	Urb2	protein_coding	URB2	-1.045186869	0.000943214	0.008438104
ENSMUSG0000047843	Bri3	protein_coding	BRI3	-1.044154837	6.52898E-05	0.000873741
ENSMUSG0000040701	Ap1g2	protein_coding	AP1G2	-1.040135093	0.000184566	0.002122079
ENSMUSG0000023088	Abcc1	protein_coding	ABCC1	-1.039485126	4.44644E-08	1.23043E-06
ENSMUSG0000022718	Dgcr8	protein_coding	DGCR8	-1.039308318	0.000426922	0.004365475
ENSMUSG0000035545	Leng8	protein_coding	LENG8	-1.03794028	8.68939E-09	2.85642E-07
ENSMUSG0000033880	Lgals3bp	protein_coding	LGALS3BP	-1.036096819	0.000611072	0.005880215
ENSMUSG0000032265	Fam46a	protein_coding	FAM46A	-1.035982633	8.58103E-09	2.8303E-07
ENSMUSG0000040033	Stat2	protein_coding	STAT2	-1.032966553	4.21111E-05	0.000594409
ENSMUSG0000050931	Sgms2	protein_coding	SGMS2	-1.03204745	0.000686553	0.006473028
ENSMUSG0000021188	Trip11	protein_coding	TRIP11	-1.027907808	0.00022184	0.002463881
ENSMUSG0000017119	Nbr1	protein_coding	NBR1	-1.027230628	4.1271E-05	0.000585081
ENSMUSG0000030671	Pde3b	protein_coding	PDE3B	-1.024886805	1.80672E-11	9.21334E-10
ENSMUSG0000030822	Prr14	protein_coding	PRR14	-1.024135796	0.00087503	0.007944203

ENSMUSG00000019189	Rnf145	protein_coding	RNF145	-1.023208406	7.47599E-07	1.63106E-05
ENSMUSG00000042903	Foxo4	protein_coding	FOXO4	-1.023110588	7.67353E-05	0.000999599
ENSMUSG00000097358	Gm26773	lincRNA		-1.01970876	2.05548E-13	1.35138E-11
ENSMUSG00000030336	Cd27	protein_coding	CD27	-1.013086536	0.000395275	0.004097476
ENSMUSG00000052681	Rap1b	protein_coding	RAP1B	-1.004439345	9.98648E-16	8.1523E-14
ENSMUSG00000097660	Gm26762	lincRNA		1.0034065	2.30493E-98	4.51583E-95
ENSMUSG00000026095	Asnsd1	protein_coding	ASNSD1	1.004784202	2.14032E-06	4.20172E-05
ENSMUSG00000056941	Commd7	protein_coding	COMMD7	1.00954749	0.000964203	0.008591467
ENSMUSG00000086841	2410006H16Rik	processed_transcript		1.009916429	4.75217E-09	1.66258E-07
ENSMUSG00000020647	Ncoa1	protein_coding	NCOA1	1.012031885	0.000972261	0.008634877
ENSMUSG00000045573	Penk	protein_coding	PENK	1.018224256	1.42229E-15	1.15147E-13
ENSMUSG00000083907	Plk-ps1	pseudogene		1.019311003	0.000792573	0.007297031
ENSMUSG00000003352	Cacnb3	protein_coding	CACNB3	1.021388522	0.000403245	0.004164829
ENSMUSG00000031880	Rrad	protein_coding	RRAD	1.023739399	0.000904584	0.008167106
ENSMUSG00000071041	Gm15210	pseudogene		1.025050252	4.88747E-09	1.69779E-07
ENSMUSG00000037112	Sik2	protein_coding	SIK2	1.027920698	0.000215235	0.002409046
ENSMUSG00000052192	Gm5963	pseudogene		1.028727792	4.49349E-09	1.58339E-07
ENSMUSG00000028270	Gbp2	protein_coding	GBP2	1.029837315	1.13628E-12	6.78722E-11
ENSMUSG00000005354	Txn2	protein_coding	TXN2	1.031131155	1.77115E-05	0.000278943
ENSMUSG00000083840	Gm15459	pseudogene		1.03119486	1.87724E-12	1.08173E-10
ENSMUSG00000097197	9530027J09Rik	lincRNA		1.03199074	3.25377E-24	6.12961E-22
ENSMUSG00000041607	Mbp	protein_coding	MBP	1.035374191	3.59838E-13	2.28894E-11
ENSMUSG00000079429	Mroh2a	protein_coding	MROH2A	1.04384196	1.89993E-23	3.32351E-21
ENSMUSG0000001507	Itga3	protein_coding	ITGA3	1.057433639	2.77506E-05	0.000418223
ENSMUSG00000031765	Mt1	protein_coding	MT1A	1.069423408	7.46058E-13	4.62556E-11
ENSMUSG00000031765	Mt1	protein_coding	MT2A	1.069423408	7.46058E-13	4.62556E-11
ENSMUSG00000031765	Mt1	protein_coding	MT1X	1.069423408	7.46058E-13	4.62556E-11
ENSMUSG00000031765	Mt1	protein_coding	MT1G	1.069423408	7.46058E-13	4.62556E-11
ENSMUSG00000031765	Mt1	protein_coding	MT1HL1	1.069423408	7.46058E-13	4.62556E-11
ENSMUSG00000048109	Rbm15	protein_coding	RBM15	1.0735115586	1.3287E-07	3.32889E-06
ENSMUSG00000097487	Ptges3l	protein_coding	PTGES3L-AARSD1	1.074658927	3.60008E-05	0.000520153
ENSMUSG00000028496	Milt3	protein_coding	MLLT3	1.076130498	2.51953E-08	7.41181E-07
ENSMUSG00000086767	Gm13070	antisense		1.081166812	6.758E-05	0.000898255
ENSMUSG00000097665	Gm16853	lincRNA		1.096178592	3.74564E-06	6.9493E-05
ENSMUSG00000038418	Egr1	protein_coding	EGR1	1.096776503	2.16832E-21	3.21832E-19
ENSMUSG00000086600	C03005K06Rik	processed_transcript		1.116442433	1.00946E-07	2.58867E-06
ENSMUSG00000015312	Gadd45b	protein_coding	GADD45B	1.1204642	3.14779E-16	2.72882E-14
ENSMUSG00000043290	Zfp784	protein_coding	ZNF784	1.122917032	1.75304E-06	3.52623E-05
ENSMUSG00000097554	Gm26825	lincRNA		1.126247999	1.0754E-209	1.0534E-205
ENSMUSG00000035949	Fbxw2	protein_coding	FBXW2	1.128691414	1.14346E-12	6.78867E-11
ENSMUSG00000097114	Gm26728	lincRNA		1.12952312	6.58314E-08	1.76198E-06
ENSMUSG00000039697	Ncoa7	protein_coding	NCOA7	1.13686124	0.000447849	0.004546244
ENSMUSG00000073405	C92025E04Rik	pseudogene		1.14579976	1.07753E-05	0.000178907
ENSMUSG00000068744	Psrc1	protein_coding	PSRC1	1.148914855	0.000187907	0.002151347
ENSMUSG00000024778	Fas	protein_coding	FAS	1.150544066	7.42624E-05	0.000973862
ENSMUSG00000031239	Itm2a	protein_coding	ITM2A	1.154065595	0.000123894	0.001507765
ENSMUSG00000097461	Gm26735	lincRNA		1.155403432	3.18869E-12	1.79519E-10
ENSMUSG00000092365	BC023719	antisense		1.164147626	6.88134E-07	1.50468E-05
ENSMUSG00000087644	Gm14703	antisense		1.176534891	0.001075198	0.009420968
ENSMUSG00000021025	Nfkbia	protein_coding	NFKBIA	1.179243592	4.06029E-45	1.89403E-42
ENSMUSG0000003865	Gys1	protein_coding	GYS1	1.188950876	1.07435E-05	0.000178681
ENSMUSG00000086648	Gm15511	antisense		1.194989984	9.93009E-05	0.001242532
ENSMUSG00000024371	C2	protein_coding	C2	1.200823378	0.00063527	0.006059499
ENSMUSG00000025856	Pdgfa	protein_coding	PDGFA	1.203317108	7.8409E-05	0.001018693
ENSMUSG00000057286	St6galnac2	protein_coding	ST6GALNAC2	1.213751614	3.67374E-18	3.74874E-16
ENSMUSG00000024712	Rfk	protein_coding	RFK	1.223465	3.46658E-06	6.48066E-05
ENSMUSG00000020396	Nefh	protein_coding	NEFH	1.231469656	4.37235E-12	2.36694E-10
ENSMUSG00000026249	Serpine2	protein_coding	SERPINE2	1.237308002	7.91549E-06	0.000136035
ENSMUSG00000031970	Dbnnd1	protein_coding	DBNDD1	1.239202472	2.77103E-05	0.000418223
ENSMUSG00000033434	Gtpbp6	protein_coding	GTPBP6	1.252640329	5.01855E-10	2.0399E-08
ENSMUSG00000093930	Hmgcs1	protein_coding	HMGCS1	1.254163077	1.10129E-09	4.24732E-08
ENSMUSG00000085585	Gm12223	antisense		1.255130276	1.05301E-20	1.32248E-18
ENSMUSG00000039680	Mrps6	protein_coding	MRPS6	1.256117929	3.59567E-06	6.68372E-05
ENSMUSG00000022508	Bcl6	protein_coding	BCL6	1.261724819	0.000496513	0.004942932
ENSMUSG00000081944	Gm12276	pseudogene		1.265705185	0.001068728	0.009381053
ENSMUSG00000031637	Lrp2bp	protein_coding	LRP2BP	1.28068826	8.96102E-11	4.00832E-09
ENSMUSG00000020284	1810043G02Rik	protein_coding	C21orf2	1.290139406	2.36604E-06	4.60789E-05
ENSMUSG00000096370	Gm21992	protein_coding	RBM4	1.30482066	0.000756176	0.00704805
ENSMUSG00000064368	mt-Nd6	protein_coding	MT-ND6	1.307948926	1.5214E-23	2.75994E-21
ENSMUSG00000098871	mmu-mir-6381	miRNA		1.309014512	7.71372E-48	3.77818E-45
ENSMUSG00000022707	Gbe1	protein_coding	GBE1	1.312973503	0.00027597	0.00297731
ENSMUSG00000086929	Gm11788	antisense		1.323234536	0.000226923	0.002510847
ENSMUSG00000032036	Kirrel3	protein_coding	KIRREL3	1.330685041	0.000873717	0.007939644

ENSMUSG00000029597	Sds	protein_coding	SDS	1.336386886	0.000200613	0.002271913
ENSMUSG00000030790	Adm	protein_coding	ADM	1.337093654	0.00089314	0.008086135
ENSMUSG00000040276	Pacsin1	protein_coding	PACSI1	1.337333291	0.000781802	0.007231854
ENSMUSG00000041117	Ccdc8	protein_coding	CCDC8	1.343034742	0.000950176	0.008492634
ENSMUSG00000071658	Gng3	protein_coding	GNG3	1.351910377	1.51008E-12	8.85795E-11
ENSMUSG00000025584	Pde8a	protein_coding	PDE8A	1.363122798	0.000596649	0.005764073
ENSMUSG00000026700	Tnfsf4	protein_coding	TNFSF4	1.377603974	1.48407E-13	9.82297E-12
ENSMUSG00000021756	Il6st	protein_coding	IL6ST	1.391029825	3.46456E-07	8.08068E-06
ENSMUSG0000017493	Igfbp4	protein_coding	IGFBP4	1.393339481	1.91416E-08	5.76956E-07
ENSMUSG0000020475	Pgam2	protein_coding	PGAM2	1.401164431	1.15319E-08	3.63237E-07
ENSMUSG0000033350	Chst2	protein_coding	CHST2	1.405956289	4.15407E-20	5.02386E-18
ENSMUSG0000032009	Sesn3	protein_coding	SESN3	1.415385562	3.60337E-12	1.99427E-10
ENSMUSG00000052684	Jun	protein_coding	JUN	1.424484151	1.36591E-32	3.93542E-30
ENSMUSG0000019489	Cd70	protein_coding	CD70	1.430334367	0.000498069	0.004953388
ENSMUSG0000073409	H2-Q6	protein_coding		1.431241497	3.75211E-08	1.05924E-06
ENSMUSG0000064372	mt-Tp	Mt_tRNA		1.433694679	3.63753E-12	2.00187E-10
ENSMUSG0000087366	BC042782	antisense		1.449752911	2.53339E-63	2.06809E-60
ENSMUSG0000053580	Tanc2	protein_coding	TANC2	1.452596492	0.00046191	0.004660006
ENSMUSG0000041216	Clvs1	protein_coding	CLVS1	1.464761753	5.208E-05	0.000718557
ENSMUSG0000038352	Arl5c	protein_coding	ARL5C	1.481964983	1.36196E-08	4.19553E-07
ENSMUSG0000018733	Pex12	protein_coding	PEX12	1.495635987	1.94854E-06	3.87178E-05
ENSMUSG0000037126	Psd	protein_coding	PSD	1.498269198	1.958E-112	4.7951E-109
ENSMUSG0000021453	Gadd45g	protein_coding	GADD45G	1.52323348	1.08848E-11	5.67169E-10
ENSMUSG0000020164	1700058G18Rik	antisense		1.538418451	5.6713E-05	0.000770542
ENSMUSG0000056665	Them6	protein_coding	THEM6	1.556415907	4.78353E-05	0.000665147
ENSMUSG0000015619	Gata3	protein_coding	GATA3	1.560605185	6.2391E-06	0.000110521
ENSMUSG0000036256	Igfbp7	protein_coding	IGFBP7	1.565432106	4.00566E-12	2.19215E-10
ENSMUSG0000038811	Gngt2	protein_coding	GNGT2	1.598114941	5.45878E-09	1.86973E-07
ENSMUSG0000026880	Stom	protein_coding	STOM	1.604768411	1.31909E-06	2.71467E-05
ENSMUSG00000058396	Gpr182	protein_coding	GPR182	1.604805773	3.52186E-06	6.57145E-05
ENSMUSG0000041801	Phlda3	protein_coding	PHLDA3	1.639297206	1.13936E-09	4.37692E-08
ENSMUSG0000022178	Ajuba	protein_coding	AJUBA	1.647555908	4.58366E-05	0.00064145
ENSMUSG0000017314	Mpp2	protein_coding	MPP2	1.651389581	6.30133E-06	0.000111221
ENSMUSG0000064043	Trerf1	protein_coding	TRERF1	1.652260039	1.06923E-07	2.72764E-06
ENSMUSG00000091491	Vmn2r97	protein_coding		1.673490058	1.43525E-05	0.000231626
ENSMUSG00000027381	Bcl2l11	protein_coding	BCL2L11	1.675463342	1.68414E-08	5.1395E-07
ENSMUSG00000089707	4921525B02Rik	antisense		1.685515189	4.04513E-14	2.8508E-12
ENSMUSG0000041782	Lad1	protein_coding	LAD1	1.700458575	1.24E-06	2.57353E-05
ENSMUSG0000044340	Phlpp1	protein_coding	PHLPP1	1.701048799	5.46602E-07	1.2281E-05
ENSMUSG0000025432	Avil	protein_coding	AVIL	1.704852743	1.85837E-05	0.00029174
ENSMUSG0000061411	8430427H17Rik	protein_coding	C20orf112	1.707867763	7.15355E-06	0.000124249
ENSMUSG0000053714	4732471J01Rik	protein_coding		1.71997407	4.3152E-11	2.03229E-09
ENSMUSG0000041272	Tox	protein_coding	TOX	1.722076597	1.31363E-06	2.71467E-05
ENSMUSG0000026837	Col5a1	protein_coding	COL5A1	1.732623911	3.49502E-05	0.000506468
ENSMUSG0000039304	Tnfsf10	protein_coding	TNFSF10	1.73564134	3.26352E-05	0.000479302
ENSMUSG0000037868	Egr2	protein_coding	EGR2	1.738995605	4.17915E-15	3.17356E-13
ENSMUSG0000029049	Morn1	protein_coding	MORN1	1.749738696	1.38932E-05	0.000225134
ENSMUSG0000049577	Zfpm1	protein_coding	ZFPM1	1.753573245	4.3465E-22	6.86746E-20
ENSMUSG00000073867	AA474408	protein_coding		1.789176994	1.32835E-08	4.11787E-07
ENSMUSG0000092203	1110038B12Rik	processed_transcript		1.830569412	1.24435E-18	1.33952E-16
ENSMUSG0000071226	Cecr2	protein_coding	CECR2	1.840573575	1.14839E-05	0.000189388
ENSMUSG0000002565	Scin	protein_coding	SCIN	1.849919616	6.26296E-06	0.000110744
ENSMUSG0000003153	Slc2a3	protein_coding	SLC2A3	1.851218615	4.48077E-16	3.85032E-14
ENSMUSG0000003153	Slc2a3	protein_coding	SLC2A14	1.851218615	4.48077E-16	3.85032E-14
ENSMUSG0000029178	Klf3	protein_coding	KLF3	1.856163667	9.24108E-07	1.96795E-05
ENSMUSG0000062785	Kcnc3	protein_coding	KCNC3	1.883446906	8.56729E-06	0.000144201
ENSMUSG0000003032	Klf4	protein_coding	KLF4	1.922935825	3.52566E-13	2.25734E-11
ENSMUSG00000045231	BC106179	protein_coding		1.929568184	5.19808E-06	9.37761E-05
ENSMUSG0000036565	Ttyh3	protein_coding	TTYH3	1.950833889	1.4268E-20	1.76924E-18
ENSMUSG0000075595	Zfp652	protein_coding	ZNF652	2.053705408	1.28516E-42	5.72245E-40
ENSMUSG0000005950	P2rx5	protein_coding	P2RX5	2.057466709	4.79582E-07	1.09256E-05
ENSMUSG0000005950	P2rx5	protein_coding	P2RX5-TAX1BP3	2.057466709	4.79582E-07	1.09256E-05
ENSMUSG0000031493	Ggn	protein_coding	GGN	2.088729879	7.92617E-09	2.64999E-07
ENSMUSG0000040152	Thbs1	protein_coding	THBS1	2.109171519	5.19361E-07	1.17498E-05
ENSMUSG00000085830	E130003G02Rik	antisense		2.123178219	5.61177E-10	2.27161E-08
ENSMUSG0000041073	Nacad	protein_coding	NACAD	2.130801442	3.55929E-08	1.00771E-06
ENSMUSG0000086052	Gm11802	antisense		2.160628044	3.02597E-16	2.64664E-14
ENSMUSG0000086618	Gm13256	antisense		2.191354176	1.72555E-10	7.31753E-09
ENSMUSG0000033083	Tbc1d4	protein_coding	TBC1D4	2.2047915	1.8764E-08	5.67321E-07
ENSMUSG0000020135	Apc2	protein_coding	APC2	2.249555184	7.84005E-09	2.63018E-07
ENSMUSG0000096141	Dnah7a	protein_coding	DNAH7	2.366445152	5.66985E-09	1.92853E-07
ENSMUSG00000057092	Fxyd3	protein_coding	FXYD3	2.411836128	2.83458E-09	1.02463E-07
ENSMUSG00000035799	Twist1	protein_coding	TWIST1	2.721298324	5.70581E-23	9.80599E-21
ENSMUSG00000029581	Fscn1	protein_coding	FSCN1	3.01165199	1.43884E-36	4.8603E-34

Table S2: Differentially acetylated histone H3 lysine 9 (H3K9Ac) between wild-type (WT) and LDHA-deficeint (KO) Th1 cells

Log2 FoldChange (Log2FC) of KO to WT
p_adj (FDR corrected p value), p<0.01

Ensembl.Gene.ID	symbol	peaks	p_value	p_adj	log2FC	WT Mean	KO Mean	chr	start	end	annotation
ENSMUSG00000107179	Rp24-547J21.4	14354	2.81847E-74	2.71927E-70	-1.777934286	1364.353612	366.2249676	chr5	120776018	120779794	promoter
ENSMUSG00000072663	Spef2	15124	5.1437E-18	9.30256E-16	-1.45810356	301.4318575	80.70114842	chr15	9666713	9669011	intron
ENSMUSG00000040483	Xaf1	14482	2.14333E-29	1.36295E-26	-1.446650383	692.0409666	222.336682	chr11	72300495	72303990	promoter
ENSMUSG00000099413	Gm17767	15822	2.38177E-45	5.21686E-42	-1.440536838	1233.175198	421.7856063	chr1	51505946	51514053	promoter
ENSMUSG00000098144	1700029N11R	14568	7.28028E-65	3.5879E-61	-1.396407648	1884.91957	685.2040457	chr13	44490069	44498433	intergenic
ENSMUSG00000040270	Bach2	14501	5.98614E-33	6.55582E-30	-1.385730122	786.2229269	272.8424997	chr4	32318755	32322130	intron
ENSMUSG00000106219	Rp23-192C21.	15850	3.75102E-11	2.28222E-09	-1.314748149	86.07145018	11.16855301	chr5	64038233	64038857	intergenic
ENSMUSG0000003882	Il7r	17657	1.87012E-19	4.0812E-17	-1.313484228	407.7473585	138.4260054	chr15	9535495	9536243	intergenic
ENSMUSG00000023341	Mx2	14629	2.10367E-33	2.43939E-30	-1.297834122	919.9141318	346.482737	chr16	97534066	97541040	promoter
ENSMUSG00000083786	Rps18-ps2	14646	9.40995E-43	1.68635E-39	-1.291168734	1251.670111	483.730531	chr4	9005918	9014053	intergenic
ENSMUSG00000026420	Il24	15474	2.00934E-20	5.14659E-18	-1.284243419	483.3713672	171.8335353	chr1	130884440	130887492	promoter
ENSMUSG00000102549	Gm38137	7116	5.24542E-24	1.98852E-21	-1.25678243	707.5035524	266.3239778	chr1	60879582	60881586	promoter
ENSMUSG00000087624	9203111E07R	3552	2.26376E-27	1.17436E-24	-1.254464164	707.2056876	290.4682429	chr2	167804372	167806053	intergenic
ENSMUSG00000057596	Trim30d	15246	2.44415E-10	1.25147E-08	-1.239483066	121.0025883	27.68765434	chr7	104506566	104507581	promoter
ENSMUSG00000019898	Ptpkr	14913	1.72927E-23	5.98056E-21	-1.235834408	658.3669288	252.4242847	chr10	28564495	28569319	intron
ENSMUSG00000031442	Mcf2l	15075	7.01007E-15	8.03427E-13	-1.20782668	328.5463822	117.5403339	chr8	12949433	12951558	promoter
ENSMUSG00000030921	Trim30a	8851	9.32444E-15	1.05036E-12	-1.18190795	366.3249637	135.6090007	chr7	104463534	104464863	promoter
ENSMUSG00000027014	Cwc22	15244	7.94675E-11	4.46308E-09	-1.174426938	196.8811478	62.5588344	chr2	77905494	77907110	promoter
ENSMUSG00000031925	Maml2	15133	5.39072E-18	9.57362E-16	-1.142979413	537.550635	217.3935929	chr9	13631095	13634464	intron
ENSMUSG00000042410	Agps	9815	4.29762E-11	2.57505E-09	-1.090204507	340.766654	129.6437997	chr2	75891080	75892037	intron
ENSMUSG00000097465	Gm16619	17547	1.63202E-29	1.0724E-26	-1.083150215	1125.641942	506.1637393	chr16	49802964	49806951	intron
ENSMUSG00000083786	Rps18-ps2	14922	4.26623E-16	5.76028E-14	-1.076203518	525.5640427	224.3182394	chr4	9015032	9018206	intergenic
ENSMUSG00000097124	A53002G20R	14778	9.60685E-11	2.59369E-09	-1.067586722	258.8087725	100.480178	chr3	121565747	121567790	intergenic
ENSMUSG00000039191	Rbpj	7972	7.82323E-20	1.85806E-17	-1.066421952	806.5404519	356.5065145	chr5	53541074	53543515	intron
ENSMUSG00000026832	Cytip	5888	1.37152E-52	5.40736E-49	-1.06479925	3025.045246	1412.404233	chr2	58181057	58189672	intron
ENSMUSG00000041235	Chd7	15823	4.26626E-18	7.85989E-16	-1.057756148	632.4175556	279.4468682	chr4	8857796	8861170	intron
ENSMUSG00000042410	Agps	14587	2.51993E-13	2.26829E-11	-1.054748323	387.8877427	163.6414478	chr2	75892275	75895097	promoter
ENSMUSG00000039191	Rbpj	8572	1.03897E-16	1.50598E-14	-1.051141559	703.4975861	310.0006106	chr5	53564216	53566534	intron
ENSMUSG00000086862	Gm13546	3890	2.48087E-41	4.07545E-38	-1.050681258	2653.571446	1243.830627	chr2	58173908	58180805	intron
ENSMUSG00000072663	Spef2	14799	1.37722E-13	1.28061E-11	-1.048456559	434.4328843	185.6092284	chr15	9580373	9582355	intron
ENSMUSG00000099413	Gm17767	14613	5.3896E-16	7.17873E-14	-1.045095206	537.0415335	236.4585043	chr1	51534787	51537855	intron
ENSMUSG00000088646	Gm26486	15431	1.69003E-17	2.6441E-15	-1.041801504	616.6440089	275.5968379	chr5	53436924	53440533	intergenic
ENSMUSG00000083546	Tpt1-ps1	14652	4.61286E-12	3.34314E-10	-1.014522393	385.0692097	166.8264433	chr3	101226599	101228944	intergenic
ENSMUSG00000063568	Jazf1	14690	5.5801E-13	4.70087E-11	-1.014466743	406.5926427	178.7459137	chr6	52887515	52890577	intron
ENSMUSG00000088646	Gm26486	8119	3.45412E-16	4.76161E-14	-1.005343688	579.1488855	265.4747895	chr5	53424684	53426526	intergenic
ENSMUSG00000087066	Gm15518	18734	4.22725E-17	6.45983E-15	-1.001796857	727.1754631	336.4453585	chr16	49774381	49776881	intron
ENSMUSG00000026211	Obsl1	8000	1.86719E-12	1.43221E-10	-0.985943057	464.3318139	209.1756398	chr1	75505093	75506785	promoter
ENSMUSG00000083546	Tpt1-ps1	15377	4.39206E-14	4.44003E-12	-0.98370682	562.1367162	259.2630667	chr3	101235657	101239793	intergenic
ENSMUSG00000104030	5330406M23F	17933	2.64661E-20	5.06531E-16	-0.971347029	817.4694951	391.6625392	chr6	31109635	31113406	promoter
ENSMUSG00000053469	Tg	4635	4.99355E-24	1.93015E-21	-0.954314472	1500.904107	743.558491	chr15	66851711	66854932	intergenic
ENSMUSG00000031925	Maml2	12354	4.66376E-19	9.47801E-17	-0.95408953	910.2317533	445.0685568	chr9	13643988	13648409	intron
ENSMUSG00000022372	Sla	1011	1.64455E-30	1.29668E-27	-0.950955577	263.591233	1346.868882	chr15	66808492	66812142	promoter
ENSMUSG00000028613	Lrp8	8934	4.86489E-12	3.50006E-10	-0.949321156	446.9233602	208.7095181	chr4	107804023	107805337	promoter
ENSMUSG00000021108	Prkch	14754	2.01029E-20	5.14659E-18	-0.946269347	1107.876553	547.3585632	chr12	73735806	73742102	intron
ENSMUSG00000056069	Fam105a	15117	1.92744E-08	6.5623E-07	-0.945799187	235.9888932	100.5047108	chr15	27702214	27703659	intergenic
ENSMUSG00000091312	Gm17490	18242	1.90741E-15	2.3798E-13	-0.945641704	697.5481484	337.5152013	chr2	11623518	11625944	promoter
ENSMUSG00000041235	Chd7	9325	2.93476E-14	3.061E-12	-0.944714003	661.8073836	317.6748398	chr4	8853302	8855869	intron
ENSMUSG0000003010701	Usp18	7649	2.27622E-20	5.75271E-18	-0.933379898	1000.76849	500.2598701	chr6	121245038	121248688	promoter
ENSMUSG00000024524	Gnal	14626	1.30458E-10	7.04579E-09	-0.930428404	393.3266682	183.3959447	chr18	67132541	67135202	promoter
ENSMUSG00000021420	Fars2	10061	1.70002E-12	1.31422E-10	-0.929218564	476.6871877	228.7461413	chr13	36309280	36311287	intron
ENSMUSG00000044522	A730020M07I	14745	2.76421E-14	2.90088E-12	-0.925710828	624.8450573	305.8684368	chr3	121592193	121596421	intergenic
ENSMUSG00000026832	Cytip	15496	2.47272E-15	3.01267E-13	-0.92550274	697.5599947	344.0350579	chr2	58191335	58195930	promoter
ENSMUSG00000072663	Spef2	18569	5.02969E-12	3.5924E-10	-0.923876285	489.7668678	235.3014623	chr15	9562762	9564745	intergenic
ENSMUSG000000072663	Spef2	15029	3.45549E-06	6.20949E-05	-0.923169199	100.4357304	29.01642531	chr15	9665533	9666279	intron
ENSMUSG00000034218	Atm	14834	2.66525E-10	1.3541E-08	-0.920248046	451.3611468	212.0675773	chr9	53448605	53452182	promoter
ENSMUSG00000029319	Coq2	9394	1.53976E-11	9.95187E-09	-0.919289562	438.2184281	209.9255772	chr5	100642861	100644732	intergenic
ENSMUSG000000107111	RP23-137N6.2	7202	1.42746E-15	1.81546E-13	-0.91820301	674.5983848	335.1301886	chr5	53543733	53545796	promoter
ENSMUSG00000083786	Rps18-ps2	3318	5.03893E-18	9.19744E-16	-0.91709622	964.8623018	484.4794197	chr4	8920193	8924401	intergenic
ENSMUSG000000090584	Gm17169	15185	2.60993E-07	6.5961E-06	-0.91652978	192.3082591	80.28275748	chr8	81788239	81789522	promoter
ENSMUSG00000032724	Abtb2	11943	4.03705E-14	4.12344E-12	-0.912975313	689.1261261	341.2193879	chr2	103580418	10358339	intron
ENSMUSG00000043931	Gimap7	7175	1.48332E-19	3.36099E-17	-0.91190074	1016.343896	516.3728468	chr6	48718686	48721897	promoter
ENSMUSG00000049093	Il23r	8733	2.62447E-14	2.78151E-12	-0.9089472	669.278908	333.1009004	chr6	67441416	67444058	intron
ENSMUSG00000026778	Prkcz	16251	1.55839E-07	4.20829E-06	-0.904336206	214.2279735	93.14940695	chr2	11283741	11285020	intron
ENSMUSG00000032216	Nedd4	5949	2.58396E-14	2.75338E-12	-0.901778698	663.9973665	332.0923894	chr9	72661561	72663986	promoter
ENSMUSG000000083450	Gm14619	14773	1.06565E-07	3.00101E-06	-0.897265436	225.7737206	100.5415098	chrX	42343863	42345477	intergenic
ENSMUSG00000040548	Tex2	16083	9.61366E-11	5.29369E-09	-0.895765803	416.1124194	202.558987	chr11	106539690	106542511	intron
ENSMUSG000000085085	1700086P04R	14055	4.56924E-30	3.21691E-27	-0.893338873	1741.4					

ENSMUSG000000040548	Tex2	15005	6.29268E-12	4.2923E-10	-0.883132699	575.8094076	287.9701637	chr11	106542688	106545961	intron
ENSMUSG000000026778	Prkcq	11803	1.08086E-22	3.43662E-20	-0.881386068	1258.127239	659.7555423	chr2	11159104	11164557	intergenic
ENSMUSG000000083900	Gm13294	14555	1.74894E-13	1.60358E-11	-0.880752559	657.4496997	333.8763504	chr2	11112481	11115858	intergenic
ENSMUSG00000104509	Gm33994	14588	1.78346E-12	1.37333E-10	-0.879662967	581.6839604	293.1748503	chr1	136576344	136579894	promoter
ENSMUSG000000088403	Gm25888	4360	2.4516E-09	1.01106E-07	-0.875825221	373.4722703	181.0095974	chr12	86832742	86833884	intergenic
ENSMUSG00000021108	Prkch	14614	2.00463E-13	1.8295E-11	-0.871076878	660.4151812	338.2797196	chr12	73742341	73745707	intron
ENSMUSG000000068227	Il2rb	10427	1.50657E-17	2.37593E-15	-0.870739551	991.9493267	518.0573423	chr15	78475877	78480232	intergenic
ENSMUSG000000083786	Rps18-ps2	18488	2.43598E-11	1.52931E-09	-0.870114536	482.8504194	243.2727535	chr4	8924634	8926655	intergenic
ENSMUSG000000080562	Gm26043	15345	1.49189E-06	3.02879E-05	-0.864510097	174.3276654	75.71992559	chr13	5722901	5724449	intergenic
ENSMUSG000000090024	Gm16350	6291	1.54642E-12	1.20018E-10	-0.862660541	700.8089373	360.2706982	chr8	14959706	14961567	promoter
ENSMUSG000000091722	Siah3	8081	1.07407E-07	3.02043E-06	-0.862639762	258.0674022	121.3290504	chr14	75445019	754545699	intergenic
ENSMUSG00000030921	Trim30a	14550	5.32434E-09	2.07428E-07	-0.859057994	432.423978	213.0502208	chr7	104444543	104446052	intron
ENSMUSG000000042474	Fcmr	15170	1.61372E-09	6.9609E-08	-0.858838446	416.6267387	206.7415617	chr1	130877212	130880010	promoter
ENSMUSG00000107907	RP23-249G11.	15058	1.04243E-06	2.22878E-05	-0.858245792	222.6612908	99.6679289	chr6	67394741	67396213	intergenic
ENSMUSG00000029772	Ahcy2	15664	2.6151E-07	6.60069E-06	-0.857928936	260.5902385	121.4026486	chr6	29827510	29828922	intron
ENSMUSG00000098107	Gm27007	15510	8.1857E-13	6.66796E-11	-0.857852358	648.9087801	334.9584595	chr13	44416833	44420786	intron
ENSMUSG00000039191	Rbpj	9218	5.03386E-19	1.01258E-16	-0.857369629	1041.511142	552.8427069	chr5	53491229	53495454	intron
ENSMUSG00000026778	Prkcg	14631	6.93782E-16	9.11769E-14	-0.856801462	986.4999651	518.9663877	chr2	11207149	11213167	intron
ENSMUSG00000106808	RP23-425N12.	1504	2.01236E-10	1.51991E-10	-0.856490374	584.1692507	301.6367959	chr5	53394390	53395823	intergenic
ENSMUSG00000041961	Znrf3	7950	1.02977E-11	6.82347E-10	-0.856307781	562.8610225	289.0781401	chr11	5295234	5296708	intron
ENSMUSG00000097766	5730420D15R	6671	1.60815E-20	4.22687E-18	-0.85533428	1155.914871	616.8284922	chr10	95413852	95418010	promoter
ENSMUSG000000086373	Gm11978	14507	1.09612E-21	3.32437E-19	-0.847673602	1286.606466	692.2894895	chr11	6655958	6662513	promoter
ENSMUSG000000097465	Gm16619	6534	1.61499E-19	3.63693E-17	-0.847480467	1294.817951	693.2748024	chr16	49797280	49802633	promoter
ENSMUSG00000027863	Cd2	17155	4.61679E-31	3.95698E-28	-0.846465947	2194.998544	1195.478096	chr3	101273923	101279677	promoter
ENSMUSG00000021108	Prkch	14601	2.08102E-11	1.32332E-09	-0.844861941	557.8918525	288.9554765	chr12	73816679	73819675	intergenic
ENSMUSG00000072663	Spef2	19222	9.96544E-08	2.82666E-06	-0.843963185	321.8569849	155.7805539	chr15	9561062	9562265	intergenic
ENSMUSG00000043004	Gng2	15158	6.02019E-06	0.000100658	-0.840529688	149.4647516	63.57966073	chr14	20024564	20025472	intergenic
ENSMUSG000000103378	Gm37176	14091	1.29443E-24	5.31605E-22	-0.839539609	1676.707885	912.7931451	chr17	51902578	51910017	intergenic
ENSMUSG000000053469	Tg	18640	5.54715E-07	1.28346E-05	-0.839146524	222.6494445	104.8958136	chr15	66807531	66808141	intron
ENSMUSG000000068663	Clec16a	15235	1.91319E-09	8.04153E-08	-0.836232641	428.6986514	218.0327783	chr16	10722557	10725319	intron
ENSMUSG00000039047	Pigk	15229	5.0063E-11	2.93718E-09	-0.836203527	507.4469363	263.740034	chr3	152761367	152765500	promoter
ENSMUSG000000088646	Gm26486	2512	2.02863E-19	4.34679E-17	-0.834425477	1314.888964	712.7090392	chr5	53398365	53402098	intergenic
ENSMUSG00000047821	Trim16	6378	6.2339E-10	2.96833E-08	-0.834415808	467.8812817	240.947738	chr11	62822242	62822242	promoter
ENSMUSG000000059248	42622	2718	9.03893E-32	9.37812E-29	-0.834184695	2466.432894	1356.167609	chr11	117305475	117311115	promoter
ENSMUSG000000099025	Gm27162	18472	6.16526E-12	4.21999E-10	-0.83304423	583.4108163	306.973442	chr9	32927573	32930178	promoter
ENSMUSG00000050439	Enthd1	17206	2.69998E-15	3.26532E-13	-0.830584268	1190.5635959	639.3399665	chr15	80587719	80591711	intergenic
ENSMUSG00000030268	Bcat1	8051	5.62993E-11	3.2642E-09	-0.82760383	543.7138667	284.8969001	chr6	144910585	144912118	intergenic
ENSMUSG000000088403	Gm25888	17115	1.50657E-07	4.10207E-06	-0.825669571	286.7670521	141.2307436	chr12	86834110	86834590	intergenic
ENSMUSG00000017929	B4galT5	7435	1.59824E-10	8.4467E-09	-0.822260456	528.9087414	277.6274608	chr2	167349722	167351559	promoter
ENSMUSG000000096435	Gm9049	16360	2.10655E-07	5.47121E-06	-0.821569561	278.3403633	137.503359	chr10	118384943	118387601	intergenic
ENSMUSG00000040687	Madd	16553	0.000022881	0.000323104	-0.82135952	118.6315288	47.08509212	chr2	91167975	91168608	intron
ENSMUSG000000076309	Mir147	15918	1.11095E-05	0.000172714	-0.814948859	174.7974271	76.51990837	chr2	122639857	122641016	promoter
ENSMUSG00000005124	Wisp1	14611	2.86113E-19	6.06467E-17	-0.814770492	1314.711694	722.9917449	chr15	66890261	66897998	promoter
ENSMUSG000000103378	Gm37176	11295	4.88486E-07	1.14774E-05	-0.814077784	253.7813925	124.8343059	chr17	51898435	51899319	intergenic
ENSMUSG000000083450	Gm14619	8786	1.97859E-10	1.02913E-08	-0.812510774	496.4392011	262.8664531	chrX	42360145	42362219	intergenic
ENSMUSG000000097585	Gm26529	10394	5.87013E-12	4.06028E-10	-0.811157917	623.9842383	335.0197913	chr7	90040008	90042555	intergenic
ENSMUSG000000083450	Gm14619	11882	4.64888E-08	1.46161E-06	-0.810954253	373.9154261	191.1437721	chrX	42363883	42365861	intergenic
ENSMUSG000000079227	Ccr5	17560	3.48635E-13	3.0551E-11	-0.810421664	861.6724876	467.1112702	chr9	124120243	124122767	promoter
ENSMUSG000000065505	Mir148a	14086	1.85728E-09	7.85665E-08	-0.810404419	430.1761743	225.4371476	chr6	51268622	51217494	promoter
ENSMUSG00000020407	Upp1	15171	7.62987E-08	2.24155E-06	-0.808472555	382.2677407	194.7103594	chr11	9117171	9120019	promoter
ENSMUSG00000031925	Maml2	14639	1.1622E-07	3.26094E-06	-0.801594181	407.832679	208.4519245	chr9	13652293	13654606	intron
ENSMUSG00000041961	Znrf3	15139	8.43466E-08	2.43196E-06	-0.801564773	337.5845571	172.8784835	chr11	5288707	5290818	intron
ENSMUSG000000083786	Rps18-ps2	461	7.2951E-46	1.7976E-42	-0.801196424	433.814884	246.0162637	chr4	8909058	8917250	intergenic
ENSMUSG000000039410	Prdm16	16187	1.22465E-06	2.54986E-05	-0.799107577	242.8318673	119.9144149	chr4	154332575	154334834	promoter
ENSMUSG000000025078	Nhlrc2	14643	2.38936E-04	4.56604E-05	-0.794081072	251.700812	123.4442031	chr19	56586293	56588464	intron
ENSMUSG000000039444	Rapgef1	14677	4.43857E-10	2.18199E-08	-0.791776136	528.801139	284.9549655	chr2	29629654	29631808	intron
ENSMUSG000000028602	Tnfrsf8	15295	1.98594E-06	3.89929E-06	-0.791534644	235.8196629	116.6176875	chr4	145313840	145315170	promoter
ENSMUSG000000075602	Ly6a	3861	2.51666E-21	7.5168E-19	-0.79135349	1457.951586	820.6167846	chr15	74993957	74997570	promoter
ENSMUSG000000039813	Tbc1d2	15535	6.36072E-05	0.000777364	-0.788446542	59.38070654	16.50683497	chr4	46635164	46635470	intron
ENSMUSG000000039191	Rbpj	18140	4.55768E-07	1.07858E-05	-0.788082233	285.4865388	145.6095801	chr5	53539820	53540716	intron
ENSMUSG000000022844	Pdia5	8830	3.99971E-07	0.000059592	-0.787510888	282.9355339	144.7605319	chr16	35489179	35490842	promoter
ENSMUSG00000001847	Rac1	8320	1.15057E-11	7.5353E-10	-0.784916266	643.1588938	353.2356545	chr5	143509176	143512490	intron
ENSMUSG000000000282	Mnt	644	6.45772E-24	2.40191E-21	-0.784517424	1743.700435	990.2479662	chr11	74826777	74832252	promoter
ENSMUSG000000027544	Nfatc2	14812	3.31187E-15	3.98091E-13	-0.784256554	936.1744981	523.0398998	chr2	168531422	168536647	intron
ENSMUSG000000083546	Tpt1-ps1	13592	5.25206E-12	3.71089E-14	-0.783823145	704.0564692	387.84929	chr3	101229168	101233527	promoter
ENSMUSG000000038160	Atg5	11164	3.01733E-08	9.83149E-07	-0.783774014	370.7219936	196.2121941	chr10	44379702	44381603	intergenic
ENSMUSG000000088646	Gm26486	15788	5.2241E-06	0.00008893	-0.782780964	208.483305	101.660418	chr5	53427041	53428361	intergenic
ENSMUSG000000080810	Gm11737	14798									

ENSMUSG000000028793	Rnf19b	15762	1.32441E-05	0.000200419	-0.761920939	193.7175257	95.08056428	chr4	129064977	129066196	intron
ENSMUSG000000029408	Abcb9	8807	2.26924E-28	1.2426E-25	-0.761488518	2395.467095	1389.413006	chr5	124075314	124084342	promoter
ENSMUSG000000030268	Bcat1	10007	4.89785E-10	2.38398E-08	-0.760125171	555.6729592	308.8817025	chr6	144960421	144962696	intergenic
ENSMUSG000000020564	Atxn7l1	17222	1.82766E-14	1.97959E-12	-0.760032666	965.9672359	550.087034	chr12	33175567	33179191	intron
ENSMUSG000000035105	Egln3	9502	0.000014842	0.000220815	-0.75900479	186.7053212	91.86970143	chr12	54210052	54210665	intergenic
ENSMUSG000000083786	Rps18-ps2	15982	3.48416E-06	6.25531E-05	-0.757329532	243.4826994	125.3753605	chr4	8934693	8936061	intergenic
ENSMUSG000000027456	Sdcbp2	14332	2.59071E-26	1.24563E-23	-0.754690496	2167.51002	1262.524879	chr2	151572269	151578720	promoter
ENSMUSG000000039361	Picalm	19051	1.06833E-06	2.27578E-05	-0.753529532	307.7761658	162.8414651	chr7	90140704	90141907	intron
ENSMUSG000000034825	Nrip3	14574	9.57157E-06	0.000151189	-0.753071389	229.2483035	115.4129148	chr7	109780628	109782178	promoter
ENSMUSG000000091722	Siah3	14820	2.77584E-05	0.000378948	-0.752130015	187.2314868	90.62812963	chr14	75457031	75458249	promoter
ENSMUSG000000040460	A830010M20I	11395	9.95882E-07	0.000021479	-0.751921762	368.5267929	195.4748778	chr5	107497726	107499552	promoter
ENSMUSG000000087312	Gm13833	14924	6.39172E-17	9.69231E-15	-0.749601324	1198.220367	692.1422932	chr6	31096046	31103911	promoter
ENSMUSG000000008393	Carhsp1	8382	3.39888E-19	6.97939E-17	-0.749600995	1595.72886	925.4376654	chr16	8666930	8672145	promoter
ENSMUSG000000045867	Cradd	11365	5.56976E-12	3.8935E-11	-0.748580469	831.3706482	473.6279729	chr10	95261749	95265816	intron
ENSMUSG00000007659	Bcl2l1	15109	4.85061E-13	4.10386E-11	-0.747080349	958.2975709	548.4502694	chr2	152802974	152808106	intron
ENSMUSG00000103139	Gm37982	15399	4.27262E-07	1.01969E-05	-0.746481037	344.4616595	185.880423	chr1	167239662	167242187	promoter
ENSMUSG000000025473	Adam8	15520	2.22301E-06	0.000043105	-0.745703062	333.2098091	175.4627873	chr7	139990542	139992520	promoter
ENSMUSG000000072623	Zfp9	14567	7.21653E-07	1.62212E-05	-0.744458999	309.4452009	166.1872579	chr6	118478456	118480048	promoter
ENSMUSG000000031641	Cbr4	15247	0.000022546	0.000319288	-0.744232254	182.8055465	90.84892414	chr8	61470546	61472305	intergenic
ENSMUSG000000085785	Sox5os3	16154	2.62384E-07	6.61429E-06	-0.742602093	365.4812088	198.9556006	chr6	144672782	144675645	promoter
ENSMUSG000000025034	Trim8	11218	4.44021E-13	3.78917E-11	-0.742563484	877.7330326	504.4669775	chr19	46519253	46522456	intergenic
ENSMUSG000000083193	4930595D18R	18723	1.45177E-14	1.58993E-12	-0.742008306	1028.5902597	594.3196571	chr12	111160264	111163633	intron
ENSMUSG000000017132	Cyth1	14889	3.46832E-20	8.54638E-18	-0.740401338	1561.460401	913.7048597	chr11	118216440	118242620	promoter
ENSMUSG000000025498	Irft7	6037	1.86124E-09	7.85656E-08	-0.739515643	555.1742933	312.7440171	chr7	141263881	141266465	promoter
ENSMUSG000000032802	Srxn1	6043	1.03266E-08	3.77677E-07	-0.737765288	482.4200099	270.1726914	chr2	152105503	152107195	promoter
ENSMUSG000000085721	Gm12796	2591	3.24228E-12	2.38489E-10	-0.736610761	836.9223939	482.2034696	chr4	101291814	101294073	intron
ENSMUSG000000088646	Gm26486	6038	2.49293E-23	8.32936E-21	-0.734402655	2230.168579	1316.535952	chr5	53407595	53413742	intergenic
ENSMUSG000000091513	Mir7671	2699	3.65108E-14	3.74863E-12	-0.734074977	1008.487936	586.5078286	chr11	53761385	53763976	promoter
ENSMUSG000000061859	Inadl	14825	3.01958E-07	7.48742E-06	-0.733349967	354.4052172	194.7484932	chr4	98434747	98437599	promoter
ENSMUSG000000027456	Sdcbp2	7362	9.66643E-10	4.45221E-08	-0.733080683	628.8799341	357.6403583	chr2	151569874	151572002	promoter
ENSMUSG000000053469	Tg	15423	2.86752E-11	1.7832E-09	-0.732560082	714.917256	411.0709078	chr15	66839887	66844915	intron
ENSMUSG000000035105	Egln3	4086	3.39772E-27	1.71742E-24	-0.732051372	2615.836018	1550.752636	chr12	54190906	54206250	promoter
ENSMUSG000000054008	Ndst1	15002	3.45424E-08	1.10901E-06	-0.731812779	476.0809194	266.1631805	chr18	60731168	60734054	intergenic
ENSMUSG000000034135	Sik3	142	1.10656E-28	6.41576E-26	-0.731791815	2850.230761	1692.329507	chr9	46172544	46176710	intron
ENSMUSG000000033306	Lpp	15141	4.65589E-06	8.07936E-05	-0.729842306	263.941955	140.5411581	chr16	24435252	24437314	intron
ENSMUSG000000026749	Nek6	15405	1.29641E-07	3.57429E-06	-0.729156603	423.8370838	235.4625297	chr2	38568676	38571932	intron
ENSMUSG000000028136	Snx27	10069	3.11202E-06	5.69613E-05	-0.728620558	288.0976267	155.0187049	chr3	94564306	94565593	intron
ENSMUSG0000000040687	Madd	15419	2.51196E-05	0.000349496	-0.727404267	215.0650999	109.7053074	chr2	91166427	91167790	intron
ENSMUSG000000041540	Sox5	2779	1.07529E-17	1.76643E-17	-0.727387674	1381.287093	814.0982627	chr6	144780552	144783695	promoter
ENSMUSG000000078671	Chd2	16565	1.11632E-08	4.02304E-07	-0.726527338	526.611561	298.7829922	chr7	73514251	73518310	intron
ENSMUSG000000025574	Tk1	4845	5.72302E-29	3.52556E-26	-0.726273534	2726.17596	1624.740335	chr11	117821023	117828304	promoter
ENSMUSG000000022946	Dopey2	15336	7.39875E-07	0.000016574	-0.725873403	365.3171963	200.9222224	chr16	93815633	93817694	intergenic
ENSMUSG000000030203	Dusp16	15113	4.25883E-11	2.55958E-09	-0.725051268	747.0692071	431.748052	chr6	134716484	134721895	intron
ENSMUSG000000083933	Carhsp1	14901	6.76846E-10	3.20638E-08	-0.723965155	667.3250011	382.952597	chr16	8661163	8666649	intron
ENSMUSG000000026358	Rgs1	15478	9.27416E-05	0.001072896	-0.722104858	148.2877539	71.79627913	chr1	144267588	144268631	intergenic
ENSMUSG000000087066	Gm15518	9292	9.85376E-10	4.51737E-08	-0.721847398	591.9962997	340.4807369	chr16	49795078	49796984	promoter
ENSMUSG000000033880	Lgals3bp	5157	1.88398E-19	4.0812E-17	-0.720376444	1572.643995	934.1476075	chr11	118398362	118404431	promoter
ENSMUSG000000018341	I12rb2	494	8.56399E-29	5.11582E-26	-0.719649344	4596.696146	274.74412	chr6	67368930	6737867	promoter
ENSMUSG00000005802	Slc30a4	14602	9.38921E-09	3.45962E-07	-0.719283532	526.6215918	300.5422402	chr2	122672280	122675314	intergenic
ENSMUSG0000000102549	Gm38137	14850	4.80816E-10	2.34612E-08	-0.719189669	680.3141429	392.6833165	chr1	60872907	60877669	intergenic
ENSMUSG000000044961	Znrf3	6531	9.4797E-14	9.1151E-12	-0.718963514	978.2425071	575.1430138	chr11	5441619	5444933	promoter
ENSMUSG000000081650	Gm16181	4035	6.48102E-30	4.40553E-27	-0.718790371	3397.537248	2037.253548	chr17	35213997	35224045	promoter
ENSMUSG000000039047	Pigk	15509	3.38385E-05	0.000451936	-0.717655566	189.4897261	97.6877013	chr3	152756893	152758342	intron
ENSMUSG000000097634	Gm26827	4969	7.42809E-08	2.19535E-06	-0.71627307	430.5553916	243.8260744	chr7	66147617	66149164	intron
ENSMUSG000000030500	Slc17a6	15387	6.11849E-07	1.40412E-05	-0.71532677	472.3347216	263.3939066	chr7	51624761	51628262	intron
ENSMUSG000000028136	Snx27	15337	2.88643E-03	0.000392145	-0.714932488	245.9902716	128.425426	chr3	94562746	94564078	promoter
ENSMUSG000000026778	Prkcq	18015	9.56411E-09	3.57419E-07	-0.714332185	517.8156857	297.380623	chr2	11185870	11187306	intron
ENSMUSG000000027030	Stk39	14940	1.31626E-05	0.000199749	-0.714048956	246.0860277	131.3405615	chr2	68381112	68382812	intron
ENSMUSG0000000104509	Gm33994	8543	1.87512E-07	0.000004922	-0.713804235	468.2998449	264.3560214	chr1	136580177	136581686	promoter
ENSMUSG000000097021	4934333G15R	6578	2.92383E-09	1.18596E-07	-0.713523486	738.3263396	426.411047	chr9	75411764	75414294	promoter
ENSMUSG000000033368	Trim69	8484	2.27379E-05	0.000321313	-0.713263206	212.5864381	111.7468619	chr2	122163566	122164418	intron
ENSMUSG000000091722	Siah3	9451	8.32298E-06	0.000132977	-0.710935641	260.4555257	140.7510209	chr14	7545408	75456707	promoter
ENSMUSG0000000017132	Cyth1	8033	4.39818E-13	3.77102E-11	-0.710891219	1223.3403049	722.0091014	chr11	118207190	118212879	promoter
ENSMUSG000000088646	Gm26486	10023	1.39688E-09	6.17378E-08	-0.710764558	625.6257737	363.1135702	chr5	53403073	53405701	intergenic
ENSMUSG000000014195	Dmajc7	14685	2.47579E-15	0.01267E-15	-0.710197195	1201.763206	714.3812683	chr11	100581694	100588564	promoter
ENSMUSG000000029605	Oas1b	9479	1.27293E-06	0.000026414	-0.708847691	361.7520751	202.1160633	chr5	120812687	120813868	promoter
ENSMUSG0000000098498	Mir8099-2	14806	0.000198643	0.002029985	-0.707840435	137.8573765	65.03109531	chr3	95137899	95138602	promoter
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ENSMUSG000000020484	Xbp1	5	1.52759E-25	7.00309E-23	-0.695661408	2838.86609	1728.763903	chr11	5518920	5525689	promoter
ENSMUSG000000098144	1700029N11R	7924	5.51548E-08	1.70685E-06	-0.694569674	612.1341588	355.844131	chr13	44545338	44547655	intergenic
ENSMUSG00000025612	Bach1	7526	1.09047E-06	2.30896E-05	-0.693894123	356.1202268	202.4731225	chr16	87698984	87700352	promoter
ENSMUSG00000023892	Zfp51	16546	4.25904E-05	0.000548389	-0.693890994	204.0914929	108.8807919	chr17	21465325	21466920	intron
ENSMUSG00000026832	Cytip	15007	1.43417E-09	6.29078E-08	-0.693862784	666.6978616	393.2734365	chr2	58147037	58151339	intron
ENSMUSG00000083786	Rps18-ps2	7451	3.22065E-14	3.34151E-12	-0.692691158	1296.382205	780.8379308	chr4	8903370	8906779	intergenic
ENSMUSG00000026819	Slc25a25	4769	0.000080225	0.000951549	-0.692424398	180.6549096	94.30511422	chr2	32451613	32451942	promoter
ENSMUSG00000020196	Cabin1	8660	1.65268E-09	7.08244E-08	-0.690975597	644.6586986	380.7025143	chr10	75666098	75669022	intron
ENSMUSG00000039191	Rbpj	7817	8.29879E-10	3.86747E-08	-0.690602663	701.2839106	415.6841407	chr5	53566804	53569973	intron
ENSMUSG00000030268	Bcat1	5667	6.75553E-11	3.8378E-09	-0.690403257	795.0577433	473.887204	chr6	144940208	144942831	intergenic
ENSMUSG00000026358	Rgs1	14686	2.50678E-08	3.80498E-07	-0.689591345	627.5678343	368.072604	chr1	144262129	144266471	intergenic
ENSMUSG00000098496	1810026B05R	17036	3.01531E-19	6.32348E-17	-0.688785448	1808.45844	1101.441507	chr7	73593495	73598795	intergenic
ENSMUSG00000027244	Atg13	2867	7.05133E-07	1.58708E-05	-0.686272043	418.0307874	240.7624079	chr2	91704301	91706290	promoter
ENSMUSG00000018899	Irf1	6370	3.0499E-10	1.53766E-08	-0.685717909	715.8908953	427.0489555	chr11	53767315	53769857	promoter
ENSMUSG00000053469	Tg	6781	2.67419E-05	0.000367362	-0.685510413	232.5536562	127.3310505	chr15	66806597	66807313	intron
ENSMUSG00000087200	Lrp8os3	4397	6.07447E-09	2.33423E-07	-0.685122661	825.450121	488.5598596	chr4	107801391	107803714	promoter
ENSMUSG00000085808	Gm14718	14930	1.02642E-07	2.90716E-06	-0.684651593	489.3928684	285.8808783	chrX	57186487	57189827	intergenic
ENSMUSG00000032035	Ets1	16960	4.00077E-40	6.0667E-37	-0.684484338	5970.310747	3685.043306	chr9	32728514	32743711	intron
ENSMUSG00000102936	Gm35584	8303	3.42307E-13	0.02597E-11	-0.684243662	1036.231011	626.2621496	chr3	68786081	68790599	intergenic
ENSMUSG00000044005	Gls2	6134	2.22206E-08	7.42433E-07	-0.683697666	540.913977	318.8196154	chr10	128194491	128196527	promoter
ENSMUSG00000053469	Tg	1005	3.94638E-07	9.4872E-06	-0.683046736	422.2021769	245.2161772	chr15	66817312	66818791	intron
ENSMUSG00000021374	Upn153	16146	7.42719E-11	4.1832E-09	-0.682792062	837.8211483	502.141962	chr13	46716294	46722866	promoter
ENSMUSG00000029204	Rhoh	7068	1.13355E-09	5.13692E-08	-0.682399661	667.2633732	397.7749366	chr5	65859844	65862167	promoter
ENSMUSG00000026313	Hdac4	14759	0.00016777	0.001759173	-0.682276012	185.9862327	95.47308784	chr1	91941831	91942668	intron
ENSMUSG00000053469	Tg	8672	4.45749E-14	4.48319E-12	-0.682145643	1162.927076	705.5731953	chr15	66821284	66826810	intron
ENSMUSG00000072663	Spef2	6559	2.04828E-12	1.54141E-10	-0.681991487	960.8392713	580.3954312	chr15	9570309	9573678	intergenic
ENSMUSG00000041936	Agrn	8474	5.00984E-06	8.57785E-05	-0.68190597	308.3416774	174.7854681	chr4	156198501	156199443	promoter
ENSMUSG00000042622	Maff	14661	5.13907E-07	0.000012046	-0.681848197	409.829739	237.5038143	chr15	79355671	79357733	intron
ENSMUSG00000030102	Itpr1	6848	1.3316E-19	3.05231E-17	-0.680765012	1963.995885	1203.731514	chr6	108539743	108547451	intron
ENSMUSG00000027540	Ptpn1	15234	1.2904E-12	1.01345E-10	-0.680707856	994.9607826	601.7730918	chr2	167970896	167976808	intron
ENSMUSG00000017830	Dhx58	17289	6.56926E-11	3.74277E-09	-0.680164407	811.3010456	488.1932034	chr11	100702727	100705391	promoter
ENSMUSG00000035692	Isg15	17598	2.16246E-06	0.000024024	-0.67944317	380.745654	218.8940929	chr4	156199661	156200766	promoter
ENSMUSG00000030104	Edem1	8353	8.02554E-07	1.76966E-05	-0.679026997	400.8427564	232.5471242	chr6	108826201	108828372	promoter
ENSMUSG00000020865	Abcc3	15472	0.00037933	0.003453918	-0.67880187	119.1235662	57.38006418	chr11	94370362	94370854	intron
ENSMUSG00000052139	Bre	15067	3.97224E-05	0.000516523	-0.678372846	222.4513038	121.9927686	chr5	32104393	32105778	intergenic
ENSMUSG00000063889	Crem	9023	4.09953E-08	1.29717E-06	-0.677973168	641.1566159	379.6068042	chr18	3278534	3281038	promoter
ENSMUSG00000034394	Lif	11638	6.75898E-06	0.000111498	-0.677177866	394.6046398	223.5059903	chr11	4268822	4270664	promoter
ENSMUSG00000025790	Slco3a1	14673	6.45707E-12	4.35919E-10	-0.677152981	1060.126914	642.4623256	chr7	74692276	74698519	intergenic
ENSMUSG00000025034	Trim8	16998	3.79615E-13	3.29663E-11	-0.676388755	1089.590217	662.8805406	chr19	46516467	46519011	intergenic
ENSMUSG00000031530	Dusp4	14635	0.00009474	0.001089879	-0.676292088	185.1713882	99.0778089	chr8	34682529	34683350	intergenic
ENSMUSG00000040270	Bach2	17814	2.38771E-10	1.22575E-08	-0.676190978	793.9765018	477.6897032	chr4	32302777	32306006	intron
ENSMUSG00000026107	Nabp1	9840	9.64282E-10	4.45173E-08	-0.675058953	993.2249018	596.8668018	chr1	51470006	51474822	promoter
ENSMUSG00000027947	Il6ra	18335	3.73863E-07	9.03182E-06	-0.674093184	492.2061837	288.6978829	chr3	89905322	89907129	intron
ENSMUSG00000025190	Got1	7109	7.23725E-13	5.99445E-11	-0.673419245	1033.414278	629.5711434	chr19	43520543	43524500	promoter
ENSMUSG00000024696	Lpxn	8064	6.4884E-12	4.36539E-10	-0.673377545	1160.415696	705.5499972	chr19	12796970	1280112	promoter
ENSMUSG00000030102	Itpr1	9346	6.43817E-07	1.46723E-05	-0.67312711	426.9442959	249.2992864	chr6	108535568	108537023	intron
ENSMUSG00000050213	Btla	14618	1.16708E-10	6.3379E-09	-0.67213827	827.9799751	501.1098193	chr16	45229708	45234934	intron
ENSMUSG00000061032	Rrp1	15697	0.000312818	0.002958685	-0.671805081	622.4607409	312.228299	chr10	78402711	78405712	intron
ENSMUSG00000053835	H2-T24	1063	3.72783E-26	1.74968E-23	-0.671384781	3642.997547	2260.768669	chr17	36014985	36024968	promoter
ENSMUSG00000034487	Kdelc2	11450	0.000178882	0.001853992	-0.671252357	161.8594714	84.96958764	chr9	53397970	53398462	intron
ENSMUSG00000091312	Gm17490	1482	1.13091E-17	1.83165E-15	-0.671222187	1887.07684	1163.152677	chr2	11617190	11621055	intergenic
ENSMUSG00000032624	Em4	15101	0.000101868	0.00115877	-0.669817594	204.4672021	109.1519865	chr17	83396697	83398381	intron
ENSMUSG00000080562	Gm26043	14862	1.01219E-06	2.17356E-05	-0.669520282	413.3555142	241.3906616	chr13	5791214	5794273	intergenic
ENSMUSG00000026305	Lrrkip1	9523	5.54436E-07	1.28346E-05	-0.668217921	427.2500389	251.1323128	chr1	91095472	91097653	intron
ENSMUSG00000031527	Erl1	14662	7.42092E-06	0.000120501	-0.668207359	370.0934434	212.1643735	chr8	35429185	35431834	intergenic
ENSMUSG00000031934	Panx1	8791	4.501104E-08	1.4197E-06	-0.666830799	555.2648316	331.3782712	chr9	15016349	15019719	intron
ENSMUSG00000050473	Slc35d3	7738	3.04595E-11	1.88229E-09	-0.666276305	1031.572802	628.7330269	chr10	19849060	19853083	promoter
ENSMUSG00000014496	Ankrd28	16276	0.000203402	0.00207432	-0.665869379	161.1915752	84.96958764	chr14	31786803	31788189	intron
ENSMUSG00000001700	Gramd3	6135	8.1387E-08	2.36634E-06	-0.665448464	521.5618835	310.8619252	chr18	56431314	56433568	promoter
ENSMUSG000000059866	Tripl2	10220	2.48889E-06	4.70858E-05	-0.665274542	358.9585239	209.3977695	chr5	34499830	34501703	promoter
ENSMUSG000000705205	Gm10804	3447	3.85629E-25	1.68931E-22	-0.664633688	333.361756	208.0492888	chr2	93444573	93454463	promoter
ENSMUSG00000099286	Mir7235	1781	1.84733E-44	3.64164E-41	-0.664489901	9480.997021	5940.513161	chr11	97129312	97153022	promoter
ENSMUSG00000026011	Ctla4	11162	1.73569E-07	0.0000463	-0.663087991	497.7408652	296.5438412	chr1	60892462	60894928	intron
ENSMUSG00000087066	Gm15518	7895	4.10987E-16	5.58744E-14	-0.662684433	1497.337575	926.8291028	chr16	49790542	49794819	intron
ENSMUSG000000103424	Gm37535	15116	7.96003E-06	0.000128199	-0.6661601381	321.2284347	185.462032	chr1	51525805	51528042	promoter
ENSMUSG00000067629	Syngap1	14731	5.69803E-12	3.95511E-10	-0.66147953	1562.584795	957.8598807	chr17	26954613	26963679	promoter
ENSMUSG000000079138	Gm8818	16442	0.000103563	0.001173293	-0.661212037	196.7906095	107.8845473	chr1	153302812	153304654	promoter
ENSMUSG00000018076	Med13l	15484	4.20498E-05	0.000542137	-0.660359795	240.8845885	135.4740708	chr5	118573875	118575820	intron

ENSMUSG000000020717	Pecam1	9401	4.93048E-06	8.45906E-05	-0.648828977	362.5209452	213.6662082	chr11	106657094	106658940	intron
ENSMUSG000000026478	Lamc1	16345	2.28655E-06	4.40184E-05	-0.648411445	389.4046117	231.6735432	chr1	153319014	153321686	intron
ENSMUSG000000050439	Erthd1	16456	0.000271008	0.002634314	-0.646289169	188.7260738	102.4113354	chr15	80556912	80558631	promoter
ENSMUSG000000026630	Batf3	10272	2.37946E-06	0.00004554	-0.646014189	415.9313428	248.0086491	chr1	191093832	191095532	intergenic
ENSMUSG000000016028	Celsr1	7531	0.000181142	0.001873479	-0.645561168	193.5364491	106.9864336	chr15	86015645	86016136	intron
ENSMUSG000000040270	Bach2	16198	5.16699E-12	3.66392E-10	-0.645195403	1082.509756	673.4344409	chr4	32295152	32302611	intron
ENSMUSG000000056692	D17Wsu92e	2353	2.04464E-08	6.88992E-07	-0.645123505	720.1869512	440.6051905	chr17	27826334	27828294	intergenic
ENSMUSG000000099757	BE692007	14679	3.04598E-07	7.53393E-06	-0.644881019	513.9159111	310.6411307	chr19	11478634	11481607	intron
ENSMUSG000000031539	Ap3m2	14655	2.98785E-05	0.000404529	-0.643395863	282.1036252	163.5678497	chr8	22804031	22805598	promoter
ENSMUSG000000034422	Parp14	959	5.33864E-14	5.20993E-12	-0.642928999	1724.7594599	1081.280886	chr16	35869381	35873334	promoter
ENSMUSG000000062279	Gm10237	10133	5.55528E-05	0.000678885	-0.642513227	288.8901893	166.2485897	chr16	35918408	35919693	promoter
ENSMUSG000000106032	RP23-298M23	15709	0.001245412	0.009153538	-0.642300524	78.19320888	32.94007177	chr3	94413299	94413873	promoter
ENSMUSG000000022607	Ptk2	15146	0.000374781	0.003421983	-0.641441398	168.7982017	90.66492872	chr15	73267002	73268284	intron
ENSMUSG000000030268	Bcat1	3259	1.92948E-10	1.00624E-08	-0.640696699	881.3154879	546.9388376	chr6	144902899	144905559	intergenic
ENSMUSG000000028163	Nfkb1	10943	9.59825E-08	2.73425E-06	-0.640389608	563.3018676	344.1209224	chr3	135607292	135609670	promoter
ENSMUSG000000102405	Gm37863	15720	6.89261E-07	1.55819E-05	-0.639697883	458.0557619	277.3562662	chr1	53793949	53797904	intergenic
ENSMUSG000000033075	Senp1	8562	0.000018256	0.000266183	-0.639174262	377.8024545	222.043624	chr15	98064774	98066530	promoter
ENSMUSG000000062510	Nsl1	15365	5.22946E-06	0.00008893	-0.636974364	407.889089	244.1449998	chr1	191085155	191088133	intron
ENSMUSG000000046879	Irgm1	1460	4.69515E-21	1.34138E-18	-0.635957021	3282.104881	2084.449905	chr11	48868248	48874559	promoter
ENSMUSG000000064307	Lrrc51	16612	0.000870995	0.006832437	-0.634236376	119.4463733	60.78718881	chr7	101948415	101949411	intergenic
ENSMUSG000000086782	E130102H24R	5956	5.31865E-14	5.20993E-12	-0.634124948	1339.31484	844.6765198	chr4	101354271	101358561	promoter
ENSMUSG000000042700	Sipa1l	9654	2.62518E-06	4.93797E-05	-0.633219813	483.4225595	292.3244674	chr12	82245692	82248145	intron
ENSMUSG000000087444	Gm5475	14651	1.30998E-08	4.65291E-07	-0.63300885	705.3240052	436.4716812	chr15	100419023	100422119	promoter
ENSMUSG000000024912	Fosf1	1524	8.2037E-17	1.20252E-14	-0.632656621	1795.701567	1139.191073	chr19	5445721	5452421	promoter
ENSMUSG000000052271	Bhlha15	15621	2.79089E-05	0.000380476	-0.632648433	292.1154393	171.9561971	chr5	144189749	144192395	promoter
ENSMUSG000000057329	Bcl2	7119	3.04816E-08	9.89923E-07	-0.632092199	628.4101785	388.5130081	chr1	106582077	106585275	intron
ENSMUSG00000017715	Pgs1	14702	6.54502E-18	1.11226E-15	-0.631594285	2525.625896	1603.937859	chr11	118002942	118016909	promoter
ENSMUSG000000030748	Il4ra	15096	4.27192E-05	0.000549331	-0.631581722	282.3700222	165.6584697	chr7	125541577	125543904	intergenic
ENSMUSG00000097039	Pvt1	15639	2.59041E-06	4.87725E-05	-0.631289412	424.3698779	257.0975138	chr15	62138561	62142338	intron
ENSMUSG000000106261	RP24-49204.S	2233	2.63854E-18	5.06531E-16	-0.630917582	2175.7229194	1384.603512	chr5	124027364	124034549	promoter
ENSMUSG000000087340	Gm15228	7887	3.50192E-05	0.000464366	-0.630867874	323.7307891	190.800314	chrX	167145582	167146679	intergenic
ENSMUSG000000051737	Trem140	9259	2.92499E-10	1.47847E-08	-0.63002188	971.8536353	609.3737228	chr6	34861087	34864929	promoter
ENSMUSG000000074388	Gm5544	17117	1.38668E-12	1.08046E-10	-0.6296595	1178.830507	743.8147499	chr3	97930414	97934410	promoter
ENSMUSG000000028793	Rnf19b	9270	3.43505E-05	0.000457969	-0.629590278	291.4423253	172.0052626	chr4	129066773	129068044	intron
ENSMUSG000000022661	Cd200	16425	2.11022E-06	4.11462E-05	-0.629511196	422.586612	256.4583284	chr16	45360723	45364259	intergenic
ENSMUSG000000027014	Cwc22	15160	0.000662754	0.005471005	-0.629490296	159.5329758	84.391734	chr2	77914915	77916164	intron
ENSMUSG000000041961	Znrf3	15838	1.28222E-07	3.5401E-06	-0.629032436	592.8846185	365.4999176	chr11	5290988	5294928	intron
ENSMUSG0000000885396	Firre	14692	0.000211098	0.0002142833	-0.628702871	197.6252181	111.7713947	chrX	50634159	50635344	promoter
ENSMUSG000000071644	Eef1g	9721	6.40813E-11	3.66155E-09	-0.627917842	1049.59937	660.6032559	chr19	8890208	8984360	intergenic
ENSMUSG000000024424	Ttc39c	11245	0.000134433	0.001465714	-0.627529411	259.6013352	149.4214947	chr18	12611631	12612852	intron
ENSMUSG000000024346	Pfdn1	14701	2.05973E-05	0.000295512	-0.627417148	322.6324834	192.2640149	chr18	36413327	36415579	intron
ENSMUSG000000026778	Prkcb	16657	8.55815E-05	0.001003014	-0.626712612	248.7628302	144.6501346	chr2	11196601	11198928	intron
ENSMUSG000000062235	Gm5341	17829	4.16757E-06	7.33529E-05	-0.62591448	392.3871572	238.0448688	chr7	90054690	90056580	intergenic
ENSMUSG000000074785	Plnk1	5514	1.43799E-17	2.28605E-16	-0.625116617	197.388803	126.090466	chr10	94939660	94946523	promoter
ENSMUSG000000031934	Panx1	15779	0.000585486	0.004942907	-0.624464993	153.2962698	83.11202848	chr9	15003450	15004480	intergenic
ENSMUSG000000076569	Bcl2l1	14520	1.41412E-20	3.76709E-18	-0.624286208	2828.677007	1810.966886	chr2	152810405	152823092	intron
ENSMUSG000000028108	Ecm1	14852	5.77307E-09	2.23146E-07	-0.623933175	744.8792244	466.0032937	chr3	95736581	95741540	promoter
ENSMUSG000000068663	Clec1a	14752	0.000007585	0.000122862	-0.623364622	465.3959914	281.2199155	chr16	10637521	10640154	intron
ENSMUSG000000024421	Lama3	7702	0.000195286	0.0002001913	-0.623250357	210.4528653	120.3818713	chr18	12585531	12586353	intergenic
ENSMUSG000000089015	Gm24996	16861	4.26393E-12	3.11314E-10	-0.623101236	1283.336653	813.9633327	chr2	75683229	75685580	promoter
ENSMUSG000000085912	Trp53cor1	14336	3.84566E-10	1.90956E-08	-0.622287062	881.7800256	555.7823751	chr17	29080344	29084130	promoter
ENSMUSG000000031511	Arhgef7	15636	5.22926E-06	0.00008893	-0.621968816	404.8382871	246.0774918	chr8	11777829	11781487	promoter
ENSMUSG000000035208	Sfln8	1137	1.51467E-06	3.11383E-05	-0.621183344	453.7767701	278.418426	chr11	83020001	83021101	promoter
ENSMUSG000000025743	Sdc3	14934	4.15086E-09	1.64309E-07	-0.62092305	952.484646	597.5523834	chr4	130793985	130801284	promoter
ENSMUSG000000071176	Arhgef10	2801	2.1612E-23	7.34548E-21	-0.620830549	3316.8890895	2132.738436	chr8	14986126	15000201	promoter
ENSMUSG000000038128	Camk4	15194	3.50585E-05	0.000464455	-0.6196202021	333.6179367	199.409456	chr18	32990747	32993100	intron
ENSMUSG000000030200	Sh3gl1	412	1.79435E-16	2.52657E-14	-0.61967858	1801.728286	1153.472358	chr17	56018515	56027967	intron
ENSMUSG000000034135	Sik3	6243	6.9672E-10	3.28575E-08	-0.618901655	1035.342692	653.656746	chr9	46149440	46153255	intron
ENSMUSG000000021990	Spat13a	15433	1.88586E-07	4.94361E-06	-0.618275702	630.0569317	391.9555972	chr14	60725403	60730308	intron
ENSMUSG000000087380	2104084721Ri	17876	8.17917E-06	0.00013851	-0.61824437	370.1787639	225.0064903	chr6	31219602	31220847	promoter
ENSMUSG000000075272	Ttc30a2	10716	4.92776E-06	8.45906E-05	-0.618035883	467.6490128	285.7214156	chr2	75963169	75956136	intergenic
ENSMUSG000000028063	Lmna	15327	8.1637E-08	2.36886E-06	-0.618004523	620.5096553	387.6639599	chr3	88492322	88497042	promoter
ENSMUSG000000028163	Nfkb1	15143	1.48035E-05	0.000220408	-0.617202312	363.1101493	219.9026038	chr3	135720176	135722107	intergenic
ENSMUSG000000035297	Cops4	13332	8.08335E-05	0.00095704	-0.616090122	274.9496902	162.386275	chr5	10053482	100535760	intron
ENSMUSG000000026395	Ptprc	16358	2.32584E-05	0.000327495	-0.61579411	328.4164979	198.0820196	chr1	138126904	138129775	intron
ENSMUSG000000039236	Isg20	14831	6.23317E-06	0.000103779	-0.614748445	395.7147918	242.0298471	chr7	78911685	78913904	promoter
ENSMUSG000000056608	Chd9	14903	3.77709E-06	6.73826E-05	-0.614089252	447.4443078	275.3515107	chr8	90876533	90878758	intron
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ENSMUSG000000054611	Kdm2a	2083	1.33323E-11	8.67389E-10	-0.608822625	1301.899822	833.9890242	chr19	4330867	4333953	promoter
ENSMUSG000000084368	Gm11572	16959	1.05713E-21	3.25611E-19	-0.608572549	2846.351857	1845.46612	chr11	97119642	97126870	intergenic
ENSMUSG000000023571	Fam132a	8274	2.7509E-09	1.12274E-07	-0.60761003	911.0570335	579.0434622	chr4	155962345	155956268	promoter
ENSMUSG000000023045	Soat2	4263	1.47194E-05	0.000219322	-0.607537156	388.2892419	237.2952861	chr15	102150489	102151572	promoter
ENSMUSG000000015647	Lama5	16080	4.43844E-05	0.000564119	-0.607376128	310.00554947	187.1587939	chr2	180224391	180226508	promoter
ENSMUSG000000031132	Cd40lg	14876	6.83018E-09	2.58964E-07	-0.607225137	811.0635589	515.2784714	chrX	57219224	57224115	intron
ENSMUSG000000106808	RP23-425N12.	11129	0.000799659	0.006366586	-0.607150572	154.4680497	85.59650671	chr5	53354433	53355181	intergenic
ENSMUSG000000033306	Lpp	15121	0.000101224	0.001153423	-0.605321319	319.824386	190.5659185	chr16	24433130	24435074	intron
ENSMUSG000000067577	A430093F15R	14461	5.12072E-06	8.73981E-05	-0.604918388	419.785143	259.8163876	chr19	10750003	10750856	promoter
ENSMUSG000000096751	Gm28373	9194	4.85008E-11	2.86256E-09	-0.604907485	1105.261379	709.0784508	chr12	102673182	102678407	intron
ENSMUSG000000024402	Lta	7874	1.07791E-05	0.000168507	-0.603967409	422.8240986	260.1121149	chr17	35210515	35211754	intergenic
ENSMUSG000000027997	Casp6	6496	4.97271E-10	2.41446E-08	-0.603923192	935.7559349	598.8702226	chr3	129901473	129904770	promoter
ENSMUSG000000037458	Azin1	7774	3.77307E-06	6.73719E-05	-0.603602176	433.8607442	269.6316369	chr15	38468558	38470587	intergenic
ENSMUSG000000083786	Rps18-ps2	17697	0.000136673	0.001486061	-0.603287816	289.5068932	172.7057798	chr4	8929100	8930007	intergenic
ENSMUSG00000003882	Il7r	1842	1.73418E-06	3.45311E-06	-0.603129627	5875.440444	3667.773288	chr15	9522674	9535331	promoter
ENSMUSG000000026509	Capn2	2108	4.33926E-16	5.81904E-14	-0.603049757	1881.551184	1219.498363	chr1	182513652	182520519	promoter
ENSMUSG000000040270	Bach2	16905	2.08009E-22	6.5087E-20	-0.602747773	3107.743087	2025.786132	chr4	32285923	32294753	intron
ENSMUSG000000034247	Plekhn1	14989	0.000496979	0.004331097	-0.602615383	180.4908972	103.4811781	chr11	103383866	103385338	intron
ENSMUSG000000014195	Dnajc7	10771	8.59971E-08	2.47483E-06	-0.602331563	680.2800147	430.3456828	chr11	100607567	100611293	intron
ENSMUSG000000011179	Odc1	15490	0.000500479	0.004354218	-0.602297116	188.9858424	108.2170737	chr12	17509166	17510993	intergenic
ENSMUSG000000026728	Vim	1168	2.76653E-14	2.90088E-12	-0.601110584	2104.808307	1364.478355	chr2	13572410	13576786	promoter
ENSMUSG000000033306	Lpp	14821	1.29829E-07	3.57446E-06	-0.600919131	739.5019266	467.5296611	chr16	24425264	24430926	intron
ENSMUSG000000037622	Wdtc1	14610	4.43447E-08	1.40091E-06	-0.600880386	880.7485656	558.6484452	chr4	133295832	133301926	intron
ENSMUSG000000029192	Tbc1d14	5530	8.12953E-10	3.79757E-08	-0.600519955	994.5147197	638.2429518	chr5	36569544	36574669	promoter
ENSMUSG000000020638	Cmpk2	14844	0.000169869	0.001778352	-0.600090751	249.2889958	148.216722	chr12	26468988	26471269	promoter
ENSMUSG000000028063	Lmna	8108	5.36296E-08	1.66226E-06	-0.599854563	673.3701948	428.0206673	chr3	88500670	88503259	promoter
ENSMUSG000000021108	Prkch	14700	1.72927E-10	9.09041E-09	-0.599535478	1253.605543	806.0315099	chr12	73634980	73642757	intron
ENSMUSG000000078636	Gm7336	16636	0.000224409	0.002255878	-0.599293878	238.1907223	141.0454136	chr7	51718060	51720719	intergenic
ENSMUSG000000019189	Rnf145	8734	1.36691E-07	3.74769E-06	-0.59920564	640.6408859	406.4712777	chr11	44543733	44546746	intron
ENSMUSG000000047632	Fgfbp3	4697	2.68981E-13	2.39928E-11	-0.598930228	1438.40956	932.1796511	chr19	36915906	36920109	promoter
ENSMUSG000000017715	Pgs1	5472	3.43686E-18	6.45246E-16	-0.59804154	247.174123	1464.345215	chr11	117990226	117995804	intron
ENSMUSG000000024608	Rps14	5972	7.16565E-09	2.69058E-07	-0.598225772	829.1280624	530.1117426	chr18	60747366	60750157	intergenic
ENSMUSG000000020120	Plek	16205	0.000207707	0.002114939	-0.598145785	264.4458387	157.1106595	chr11	17004273	17006379	promoter
ENSMUSG000000057329	Bcl2	17219	5.9688E-06	9.98837E-05	-0.597570161	523.447534	326.533313	chr1	106567794	106569666	intron
ENSMUSG000000024424	Ttc39c	2202	7.28547E-18	1.21711E-15	-0.597445656	2956.569954	1929.596256	chr18	12641169	12648330	promoter
ENSMUSG000000021286	Zfycve21	5673	6.77869E-08	2.03702E-06	-0.597347115	700.3718993	445.6954759	chr12	111814203	111816831	promoter
ENSMUSG000000018341	Il12rb2	11006	5.02631E-06	8.59355E-05	-0.59722346	441.5014989	275.8557662	chr6	67364739	67367108	intron
ENSMUSG000000033863	Klf9	17094	1.32688E-07	3.64809E-06	-0.596735159	638.7474998	406.2123495	chr19	23141209	23143937	promoter
ENSMUSG000000020122	Egrf	15079	0.000033404	0.000447354	-0.596646399	336.4980977	206.4703671	chr11	16751356	16754359	promoter
ENSMUSG0000000097645	Gm26863	14770	0.000640976	0.005328975	-0.596267373	175.4141248	100.5292435	chr15	38834336	38835496	promoter
ENSMUSG000000032594	Ip6k1	19025	1.30859E-05	0.000198739	-0.596143283	422.1287027	262.0555386	chr9	108033602	108035233	promoter
ENSMUSG000000052397	Ezr	14112	6.86647E-24	2.50664E-21	-0.595361006	3378.905823	2215.541136	chr17	6775222	6784641	promoter
ENSMUSG000000026628	Atf3	2662	4.35312E-23	1.40676E-20	-0.595052525	328.411022	2116.733187	chr1	191179396	191186567	promoter
ENSMUSG0000000108238	RP23-434H14.	15082	1.55285E-08	2.45655E-07	-0.594825272	818.683262	525.0569216	chr6	134082756	134087709	promoter
ENSMUSG000000036550	Cnot1	14357	0.000555551	0.004736488	-0.594207917	186.7958595	108.3765364	chr8	95807698	95808083	promoter
ENSMUSG000000060261	Gtf2i	16152	1.24208E-05	0.00018922	-0.594094581	399.5410922	248.7950309	chr5	134302926	134305662	promoter
ENSMUSG000000033629	Hacd3	14565	0.000373522	0.003412063	-0.593634769	211.1548897	124.4281814	chr9	65009574	65010766	intron
ENSMUSG000000057329	Bcl2	17075	3.20865E-11	1.97663E-09	-0.593459683	1198.633712	776.3622981	chr1	106610786	106614201	intron
ENSMUSG000000039234	Sec24d	8207	1.44206E-06	2.94584E-05	-0.592989742	518.6134662	327.5895547	chr3	123266445	123268901	promoter
ENSMUSG0000000108184	RP24-180C9.3	14355	1.54199E-19	3.45423E-17	-0.59280904	3069.733647	2012.905881	chr6	87526939	87536762	promoter
ENSMUSG0000000040270	Bach2	8963	7.35614E-07	1.64981E-05	-0.592715711	567.6254233	359.435251	chr4	32306229	32308874	intron
ENSMUSG000000026778	Prkcg	10819	1.16726E-06	2.44789E-05	-0.592062392	539.3614006	341.1567214	chr2	11202990	11205163	intron
ENSMUSG000000024891	Slc29a2	8909	0.0001142289	0.008567911	-0.591875449	152.4250152	85.40024493	chr19	5018006	5018434	intergenic
ENSMUSG000000015357	Clpx	3642	1.02999E-06	2.20698E-05	-0.591684405	594.9565634	377.3185878	chr9	65293301	65294075	promoter
ENSMUSG0000000099025	Gm27162	17501	8.43819E-08	2.43191E-06	-0.591535823	770.3825345	493.3474899	chr9	32910883	32913777	intron
ENSMUSG000000020715	Ern1	15890	0.00034851	0.003228463	-0.58991697	277.2880321	164.9198187	chr11	106475943	106478339	intron
ENSMUSG0000000078349	AW011738	14978	0.000355449	0.003276108	-0.589879014	215.4220353	127.6881096	chr4	156201901	156203110	promoter
ENSMUSG0000000097867	Lppos	1604	4.8491E-14	4.80353E-12	-0.588576848	1604.920612	1049.375192	chr16	24392873	24395769	promoter
ENSMUSG0000000037151	Lrrc20	7509	4.47747E-05	0.000568016	-0.588531157	343.2164054	212.09211	chr10	61475821	61476888	promoter
ENSMUSG0000000045827	Serpinb9	17454	1.30119E-06	0.000268595	-0.588067486	524.5562753	333.2480967	chr13	32997003	32999003	intergenic
ENSMUSG0000000084871	Gm2800	7575	6.16622E-09	2.36029E-07	-0.588017776	1128.846321	729.7542595	chr12	1071800824	10718181	promoter
ENSMUSG000000085450	Gm13686	14578	9.88311E-05	0.001129425	-0.586968433	300.1918213	183.813001	chr2	83700955	83702616	promoter
ENSMUSG0000000107508	RP23-472N21.	14807	6.83835E-05	0.000779673	-0.586810993	311.1772746	191.8701567	chr6	67415580	67417547	promoter
ENSMUSG0000000103253	Gm37520	5771	7.41097E-17	1.10676E-14	-0.586736823	2398.304102	1576.107012	chr2	11189170	11195850	promoter
ENSMUSG000000030199	Etv6	15036	7.58726E-05	0.000905921	-0.585687342	304.7647099	187.5526521	chr6	134088038	134090144	intron
ENSMUSG000000022378	Fam49b	10905	1.83227E-07	4.84177E-06	-0.585614267	647.6583082	415.2657497	chr15	64031869	64035330	intron
ENSMUSG000000032579	Hemk1	10227	1.13995E-09	5.15409E-08	-0.585540086	1049.122986	680.4804164	chr9	107323425	107327075	intergenic

ENSMUSG00000007659	Bcl2l1	10261	3.50282E-05	0.000464366	-0.58106046	418.8285679	261.4163531	chr2	152808264	152810248	intron
ENSMUSG00000000282	Mnt	17237	4.19701E-10	2.07358E-08	-0.580814608	1057.720316	690.0503385	chr11	74832415	74835350	promoter
ENSMUSG000000027951	Adar	865	1.08926E-12	8.69339E-11	-0.580792598	1440.97876	946.103877	chr3	89730741	89733803	promoter
ENSMUSG00000087611	4930458D05R	6080	5.03893E-06	8.60766E-05	-0.580574443	531.0134038	337.0354785	chr5	100845417	100847392	promoter
ENSMUSG00000034903	Cobl1	11616	0.000714971	0.005828804	-0.580226311	189.8860074	111.8081938	chr2	65170982	65171796	intron
ENSMUSG00000021108	Prkch	18368	2.66258E-08	8.74647E-07	-0.579847068	787.6886035	510.3831131	chr12	73669561	73673291	intron
ENSMUSG00000020614	Fam20a	10857	0.000050575	0.000633358	-0.579673709	348.5700104	217.0242674	chr11	109721019	109722896	promoter
ENSMUSG00000039703	Nploc4	14945	0.000229379	0.002296471	-0.579315721	270.6602627	165.0070179	chr11	120425267	120426794	intron
ENSMUSG000000103774	Gm36932	566	1.68015E-28	9.46308E-26	-0.579246803	7866.756608	5229.611281	chr2	11167959	11183376	promoter
ENSMUSG00000020806	Rhbdf2	14827	1.53622E-06	0.00003106	-0.578759697	576.6806623	368.783044	chr11	116615895	116618940	intron
ENSMUSG00000050439	Enthd1	6433	4.37995E-06	7.66122E-05	-0.578663508	481.0789998	306.3849579	chr15	80558867	80560343	promoter
ENSMUSG00000027544	Nfatc2	15896	3.86898E-06	6.88351E-05	-0.57857704	516.6491237	328.8324611	chr2	168540925	168545328	intron
ENSMUSG00000053469	Tg	17070	1.01582E-09	4.63536E-08	-0.578150552	1059.605967	692.6342823	chr15	66859471	66861925	intergenic
ENSMUSG00000001123	Lgals9	7203	1.79672E-09	7.63337E-08	-0.57744732	1063.374446	694.0993179	chr11	78982330	78986160	promoter
ENSMUSG00000038578	Susd1	14648	3.15852E-05	0.000425591	-0.577164586	388.7419333	244.0346026	chr4	59437290	59439447	promoter
ENSMUSG00000068220	Lgals1	16894	3.69002E-16	5.05149E-14	-0.576911483	2112.061805	1396.86644	chr15	78924928	78931968	promoter
ENSMUSG00000086060	Gm16084	12457	1.29264E-05	0.000196619	-0.576662576	442.7742527	280.1487381	chr12	107158996	107161046	promoter
ENSMUSG00000032249	Anp32a	5485	3.43208E-10	1.72272E-08	-0.576543797	1128.997077	738.9193916	chr9	62372762	62376673	promoter
ENSMUSG00000098843	Gm27240	2626	2.58822E-30	1.96237E-27	-0.57646732	7331.572801	4884.262388	chr9	32710142	32728279	promoter
ENSMUSG00000055170	Ifng	19523	2.63101E-06	4.94424E-05	-0.57641756	520.9399618	333.7032867	chr10	118441048	118444048	promoter
ENSMUSG00000037940	Inpp4b	9844	6.50723E-05	0.000793782	-0.575637762	347.3366026	216.9138703	chr8	81756919	81758121	intron
ENSMUSG00000021451	Sema4d	15054	0.000098811	0.001129425	-0.575487854	315.965368	196.4207223	chr13	51741055	51743055	intron
ENSMUSG00000057137	Tmem140	14742	0.000154877	0.001644149	-0.575480846	278.8324007	171.9071317	chr6	34869680	34871062	promoter
ENSMUSG00000028854	Slc9a1	11120	0.001366451	0.009899617	-0.575303772	156.3300077	89.77908141	chr4	133398938	133399554	intron
ENSMUSG00000027014	Cwc22	15871	0.000910704	0.007098738	-0.575294716	187.3732174	110.1604974	chr2	77913236	77914746	intron
ENSMUSG00000074570	Cass4	8888	3.11434E-05	0.000419925	-0.575265539	398.222364	250.8992519	chr2	172392262	172393964	promoter
ENSMUSG00000098144	1700029N11R	15137	3.16407E-05	0.000426048	-0.575219295	374.876319	236.2118424	chr13	44501220	44504049	intergenic
ENSMUSG000000100150	Gm19585	10996	2.86944E-06	5.30346E-05	-0.574724464	560.0595535	359.3493865	chr17	52154598	52156460	intron
ENSMUSG00000052139	Bre	14879	0.000226947	0.002275586	-0.573388413	269.4884828	165.4867406	chr5	32102617	32104216	intergenic
ENSMUSG00000029287	Tgfb3r	9027	4.34693E-06	7.61576E-05	-0.57327156	503.3831492	321.9936792	chr5	107260993	107263041	intron
ENSMUSG00000087452	Gm11998	10789	7.62232E-06	0.000123324	-0.571381729	478.057108	305.788333	chr11	11563849	11566484	intron
ENSMUSG00000086527	Gm15856	16504	1.36916E-05	0.000206347	-0.571130489	452.5092341	288.3517555	chr6	121224998	121228491	promoter
ENSMUSG00000021108	Prkch	10547	1.52559E-10	8.10617E-09	-0.570058166	1285.803468	847.5561909	chr12	73694519	73701669	intron
ENSMUSG00000003545	Fosb	7746	4.30844E-06	7.55661E-05	-0.570044426	608.3761147	391.4772091	chr7	19308810	19310290	promoter
ENSMUSG0000000631	Myo18a	6909	1.66402E-06	3.32348E-05	-0.56919137	621.1561021	400.9108666	chr11	77801737	77803788	promoter
ENSMUSG00000026478	Lamc1	1662	8.69604E-13	7.03801E-11	-0.569124614	1744.40246	1156.446156	chr1	153328714	153333797	promoter
ENSMUSG00000037470	Uggt1	9017	6.13133E-05	0.000752128	-0.56908092	355.2489721	223.9979794	chr1	36235334	36236686	intron
ENSMUSG00000036943	Rab8b	14650	1.30069E-08	4.62824E-07	-0.568672814	888.9680888	583.1375031	chr9	66885193	66891126	intron
ENSMUSG00000042351	Grap2	15111	3.75781E-05	0.000491557	-0.567908542	386.087207	244.6260572	chr15	80609610	80612018	intergenic
ENSMUSG00000089940	Gm4117	11850	0.001262849	0.009254474	-0.566989895	173.4052185	101.9193463	chr13	89739326	89740389	promoter
ENSMUSG00000080929	Gm12891	18438	7.30451E-05	0.000877218	-0.566774871	349.5948419	220.3577939	chr4	122934222	122935926	intergenic
ENSMUSG00000027999	Pla2g12a	15175	0.001049694	0.0008001789	-0.56658139	192.9761553	114.4657357	chr3	129893501	129895251	promoter
ENSMUSG00000041483	Zfp281	16536	2.51223E-05	0.000349496	-0.566260233	402.636458	256.3969966	chr1	136635121	136639309	intergenic
ENSMUSG00000033545	Znrf1	8714	1.24643E-08	4.45933E-07	-0.566172854	925.2402371	607.7886929	chr8	111565957	111570550	intron
ENSMUSG00000073643	Wdfy1	16270	0.001231831	0.009071003	-0.566023601	185.2789906	109.102921	chr1	79764774	79766339	intron
ENSMUSG00000024074	Crim1	16087	0.000123841	0.001363844	-0.565545716	312.8922842	196.310325	chr17	78244869	78247846	intron
ENSMUSG00000019471	Cdc37	10769	0.000123727	0.001363348	-0.565262771	331.0710185	207.7010072	chr9	21134590	21135996	intergenic
ENSMUSG00000038037	Socs1	8278	4.17561E-06	7.34288E-05	-0.565109735	565.9445419	364.958863	chr16	10780079	10782030	intergenic
ENSMUSG00000026821	Ralgds	18229	6.88473E-05	0.00083263	-0.564864914	399.2628489	251.8205637	chr2	28525505	28527217	intron
ENSMUSG000000106224	RP24-404P10.	8635	7.50441E-07	1.67413E-05	-0.56478561	693.2928491	451.7478761	chr3	121722592	121725175	promoter
ENSMUSG00000043004	Gng2	11052	1.30332E-05	0.00019809	-0.564759127	497.2829556	319.4342681	chr14	19984739	19987608	intergenic
ENSMUSG00000028885	Mpd3lb	9531	7.02361E-05	0.000848383	-0.56458963	347.8968964	219.9148702	chr4	132755831	132757719	promoter
ENSMUSG00000001847	Rac1	8352	2.32389E-05	0.000327454	-0.564164987	406.683181	259.8163876	chr5	143518523	143519825	promoter
ENSMUSG00000071369	Map3k5	15650	0.00091463	0.007120895	-0.563057421	198.6355033	119.1266985	chr10	20103718	20105523	intron
ENSMUSG00000044471	Lincpint	3560	1.19061E-17	1.90818E-15	-0.562977202	2680.243715	1794.923503	chr6	31126767	31135379	intron
ENSMUSG00000030091	Pn210	3291	1.60969E-15	2.02286E-13	-0.562945958	2348.275232	1569.170099	chr6	91105214	91114868	promoter
ENSMUSG00000038910	Plc12	15848	5.89858E-05	0.000725381	-0.562938695	402.6824324	255.7823439	chr17	505242046	50526644	intron
ENSMUSG000000108210	RP23-42H18.5	6839	7.01141E-18	1.18133E-15	-0.562870511	2700.921983	1807.741087	chr2	38536779	38545944	promoter
ENSMUSG000000027544	Nfatc2	16150	1.70033E-06	3.39258E-05	-0.562599156	569.8272525	370.2222122	chr2	168570498	168574979	intron
ENSMUSG000000031959	Wdr59	7881	0.000018080	0.000263958	-0.562396816	487.4863464	313.2114735	chr8	111527432	111529101	intergenic
ENSMUSG000000032661	Oas3	15056	0.000174648	0.00018206368	-0.562060603	320.3913082	200.8731569	chr5	120773540	120773736	promoter
ENSMUSG00000020380	Rad50	15364	0.000013657	0.000205983	-0.561765626	462.814945	297.343824	chr11	53651310	53655218	intron
ENSMUSG000000058013	42624	16046	0.0005062427	0.004785119	-0.561728617	225.8301307	138.0689462	chr5	93150024	93152007	promoter
ENSMUSG000000057329	Bcl2	14667	0.000620642	0.005193006	-0.561118781	229.7351231	140.0737017	chr1	106515848	106516806	intergenic
ENSMUSG000000057963	Itpk1	14598	1.79856E-10	4.94045E-09	-0.561078147	1205.849275	800.1249714	chr12	102650805	102659031	intron
ENSMUSG00000030208	Emp1	7263	6.29704E-06	0.000104745	-0.5608821	501.1708844	324.4413583	chr6	135362919	135364457	promoter
ENSMUSG00000021133	Suds6	16446	0.000801427	0.006375517	-0.560856228	207.0740384	125.2281641	chr12	80815526	80817378	intron
ENSMUSG000000087433	Gm14167	16037	0.00044138	0.0							

ENSMUSG00000027333	Smox	19043	6.58352E-08	1.98442E-06	-0.556291003	926.0484531	610.641162 chr2	131500376	131505039 intron
ENSMUSG00000030966	Trim21	14526	4.83137E-05	0.000608956	-0.556289165	391.0290829	250.7261882 chr7	102563488	102565413 promoter
ENSMUSG00000021108	Prkch	7945	6.09068E-16	8.0581E-14	-0.555671262	2245.55628	1509.905274 chr12	73684455	73692356 intron
ENSMUSG00000020015	Cdk17	16650	3.25786E-06	0.000059191	-0.555464133	568.3838577	370.4934068 chr10	93188758	93193576 intron
ENSMUSG000000048251	Bcl1b	7233	2.39851E-13	2.17888E-11	-0.555454677	1955.029773	1309.931565 chr12	107962764	107968655 intron
ENSMUSG00000083671	Gm14304	15314	1.32311E-08	4.69109E-07	-0.555344177	924.2272518	612.8067148 chr2	131441704	131448474 intergenic
ENSMUSG00000028163	Nfkb1	9791	1.5027E-07	4.09719E-06	-0.555065223	742.7063054	490.0875616 chr3	135621250	135625077 promoter
ENSMUSG00000070003	Ssbp4	2693	1.0739E-17	1.76643E-15	-0.553797669	2816.576184	1897.693232 chr8	70601834	70612048 promoter
ENSMUSG00000030102	Itp1	18383	2.03552E-06	3.98869E-05	-0.553753352	638.8457737	417.7747607 chr6	108530406	108533648 intron
ENSMUSG00000057329	Bcl2	15736	0.000516015	0.004767865	-0.553514878	242.9446875	150.2582765 chr1	106716191	106718161 promoter
ENSMUSG00000020218	Rgcc	15335	0.000763364	0.006144632	-0.552924203	216.9218401	133.1858543 chr14	79293782	79294787 intron
ENSMUSG00000024074	Crim1	7621	1.12246E-05	0.000174091	-0.551703144	487.9665378	317.3927135 chr17	78200178	78202087 promoter
ENSMUSG00000041765	Ubac2	17435	7.73697E-05	0.000921564	-0.550204016	368.6448309	236.4094388 chr14	121897898	121899230 intron
ENSMUSG00000025314	Ptpj	11020	3.80499E-06	0.00067819	-0.550060699	608.8103314	398.6103838 chr2	90560078	90563040 intron
ENSMUSG00000018487	Rac1	8984	2.53207E-05	0.000351512	-0.549609243	450.4714174	291.7724811 chr5	143516101	143518177 promoter
ENSMUSG00000021242	Npc2	8073	1.42712E-05	0.0002141	-0.549468094	559.2105807	364.4055421 chr12	84762712	84764732 intron
ENSMUSG00000001630	Stk38l	14947	3.43056E-06	6.17584E-05	-0.549245812	561.7115245	368.5499831 chr6	146729636	146734229 intron
ENSMUSG00000026630	Batf3	6351	6.39807E-11	3.66155E-09	-0.549321547	1383.516422	928.2792027 chr1	191097599	191101390 promoter
ENSMUSG00000064491	Gm22061	16867	5.62481E-12	3.91809E-10	-0.549014212	1718.270599	1154.651263 chr11	98943492	98946493 promoter
ENSMUSG00000018983	Ezf2	471	2.79557E-25	1.25248E-22	-0.548997498	5980.290829	4058.506507 chr4	136167445	136181917 promoter
ENSMUSG00000022378	Fam49b	15797	1.87559E-09	7.90031E-08	-0.548786329	1063.736599	711.1704055 chr15	64045263	64053210 intron
ENSMUSG000000046711	Hmgaa1	16509	2.51972E-07	6.40918E-06	-0.548689622	788.3958457	522.0668533 chr17	27545752	27550446 intergenic
ENSMUSG00000017715	Pgs1	15445	0.000109177	0.000222847	-0.548443927	394.1415128	252.5210809 chr11	118018030	118021017 intron
ENSMUSG00000009213	Tmem189	3682	3.48702E-13	3.0551E-11	-0.548295676	2067.63839	1392.524403 chr2	167687044	167693414 promoter
ENSMUSG00000009647	Mcu	6448	6.2751E-07	1.43465E-05	-0.546200882	687.6320904	455.0814026 chr10	59576262	59579258 intron
ENSMUSG00000026630	Batf3	17830	0.000275286	0.002664068	-0.546115931	290.1800072	183.9983311 chr1	191095946	191097445 promoter
ENSMUSG00000053553	311008217Ril	11740	0.000017523	0.000256635	-0.545931991	462.5774583	301.226604 chr5	139363642	139365667 intron
ENSMUSG00000072663	Spef2	8706	7.50274E-05	0.000898006	-0.54580047	436.5271111	282.0185636 chr15	9567063	9569444 intergenic
ENSMUSG00000021451	Sema4d	12276	2.42868E-06	4.63023E-05	-0.545348642	585.5102609	386.2493244 chr13	51733498	51736888 promoter
ENSMUSG00000019189	Rnf145	12480	1.44841E-05	0.000216306	-0.544776248	474.015603	309.9638116 chr11	44538075	44541111 intron
ENSMUSG00000088015	Mir1932	7798	3.23694E-09	1.29431E-07	-0.544318948	1052.332583	709.6726608 chr11	119389577	119394038 promoter
ENSMUSG00000065314	Gm26065	15555	0.00041848	0.00367515	-0.543974739	283.7792888	179.3973655 chrX	20801775	20804407 promoter
ENSMUSG00000032594	Ip6k1	9990	3.00092E-08	9.79424E-07	-0.543970312	926.9263363	619.1535077 chr9	108045092	108048972 promoter
ENSMUSG00000034613	Ppm1h	15482	0.00132329	0.009622842	-0.543446787	211.7938755	129.2744742 chr10	122757654	122759604 promoter
ENSMUSG00000087163	Gm16230	8433	0.000235515	0.002347174	-0.543398678	309.6210597	197.7494932 chr10	127675385	127676764 promoter
ENSMUSG00000052949	Rnf157	6815	2.96303E-09	1.19693E-07	-0.542261031	1080.381401	725.5743541 chr11	116394626	116398015 intron
ENSMUSG00000037820	Tgm2	15991	7.30117E-06	0.000119047	-0.542165659	536.5376498	353.3583181 chr2	158159027	158163934 intergenic
ENSMUSG00000021108	Prkch	8589	1.0949E-06	0.000023109	-0.541996994	901.3443339	597.2361273 chr12	73643866	73647801 intron
ENSMUSG00000023243	Kcnk5	8528	3.67651E-07	8.93056E-06	-0.541984646	721.6749098	480.3827096 chr14	20178390	20181808 promoter
ENSMUSG00000025804	Ccr1	4466	2.53939E-12	1.89617E-10	-0.541164989	1800.450314	1219.377034 chr9	123926431	123932106 intergenic
ENSMUSG00000021460	Auh	6547	1.08451E-06	2.29881E-05	-0.540570402	710.1922012	472.4114184 chr13	52914914	52919424 promoter
ENSMUSG00000025804	Crr1	17481	4.98916E-08	1.55373E-06	-0.539513258	880.0308878	589.6328269 chr9	123932334	123935477 intergenic
ENSMUSG00000028381	Ugcg	15374	0.000177292	0.001841394	-0.539303994	333.2216554	214.6624528 chr4	59195753	59197785 intron
ENSMUSG00000030956	Fam53b	5012	4.4121E-21	1.27906E-18	-0.538901773	435.366865	2972.747319 chr7	132801078	132814894 promoter
ENSMUSG00000024424	Ttc39c	15817	8.90396E-05	0.001038603	-0.538439455	389.8061108	252.8672083 chr18	12633447	12636620 intron
ENSMUSG00000029528	Pxn	15818	9.59573E-09	3.52254E-07	-0.538100498	1303.210511	875.8939624 chr5	115528788	115537303 intron
ENSMUSG00000039377	Hlx	7981	1.98452E-05	0.00028639	-0.538034247	518.3589154	340.6292679 chr1	184730491	184732523 promoter
ENSMUSG000000086263	4930519D14R	9597	4.85849E-07	1.14564E-05	-0.537035654	719.9034901	481.0218959 chr13	30628571	30631281 intergenic
ENSMUSG00000020717	Pecam1	9217	0.000264147	0.002580337	-0.536958233	322.4566247	206.7292953 chr11	106665367	106666839 intron
ENSMUSG00000057963	Itpk1	15228	1.76624E-09	7.52008E-08	-0.536366324	1186.329531	801.1470833 chr12	102619630	102628283 intron
ENSMUSG00000021460	Auh	16078	0.00041837	0.000541164	-0.536296082	453.3582068	297.1094284 chr13	52903830	52907275 intron
ENSMUSG00000089324	Mir1936	15811	8.09107E-07	1.78211E-05	-0.536268915	692.9804776	462.4367064 chr12	102678637	102683187 promoter
ENSMUSG00000019850	Trafip3	8199	1.84347E-06	5.64131E-06	-0.536106427	687.2595017	458.2418653 chr10	19061224	19064227 intergenic
ENSMUSG00000040010	Slc7a5	1981	7.41846E-24	2.65891E-21	-0.535855808	6836.147571	4681.157008 chr8	121892119	121907644 promoter
ENSMUSG00000053469	Tg	608	9.39193E-07	2.03958E-05	-0.535807967	738.9141331	493.1266954 chr15	66788919	66792336 intron
ENSMUSG00000042700	Sipa11	15227	0.000113167	0.001260374	-0.53513534	387.8024224	251.83283 chr2	82229452	82233007 intron
ENSMUSG00000057329	Bcl2	9693	0.000444581	0.000565974	-0.534908499	420.0003478	275.3883098 chr1	106615173	106617015 intron
ENSMUSG00000021182	Cdc88c	15456	2.82053E-06	5.23551E-05	-0.534400253	630.8717763	419.9144462 chr12	100967481	100971811 intron
ENSMUSG000000024840	Glipr2	11172	3.77449E-05	0.000493412	-0.53410847	481.9398188	317.1105872 chr4	43972470	43975287 intron
ENSMUSG00000034773	Bco30867	16210	0.0011402	0.008516163	-0.533424543	216.9953143	135.5476689 chr11	102244309	102245910 intergenic
ENSMUSG000000103457	Gm37042	7677	1.87439E-06	3.69868E-05	-0.533249264	711.2563787	475.4014867 chr15	74987810	74990147 promoter
ENSMUSG00000030717	Nupr1	14746	1.59863E-05	0.000236413	-0.533212006	546.3631695	361.6498693 chr7	126623995	126627578 promoter
ENSMUSG000000020143	Dock2	7869	1.09371E-10	5.9724E-09	-0.533195503	1375.752536	934.4678767 chr11	34768625	34775143 intron
ENSMUSG000000040455	Usp45	4749	0.000123404	0.001360548	-0.533158072	370.5238529	241.1317334 chr4	21765942	21767182 promoter
ENSMUSG000000106890	All77237.2.1	15220	0.001029138	0.00261443	-0.532980554	241.1050115	150.6640411 chr2	93955222	93957532 promoter
ENSMUSG000000053914	Kdm4d	7467	0.000019695	0.000284639	-0.532617996	480.1224247	317.2945826 chr9	14496613	14498497 promoter
ENSMUSG000000027544	Ntfatc2	16367	3.05742E-07	7.5433E-06	-0.532310865	897.7673664	602.2528145 chr2	168524066	168530181 intron
ENSMUSG000000034424	Gch3	10944	0.000287905	0.002761788	-0.530789124	316.271119	204.4901443 chr8	116991911	116993481 promoter
ENSMUSG000000040172	Siah3	10130	8.13614E-05	0.000961589	-0.530720039	408.2000499	267.4306196 chr14	75516447	75518182 intron
ENSMUSG000000026596	Abl2	5861	1.59818E-08	5.5959E-07	-0.530216953	1021.895641	692.1300268 chr1	156615643	156619058 promoter
ENSMUSG000000015316	Slamf1	15808	2.52523E-05	0.00035081	-0.529971837	504.1022376	333.5670221 chr1	171779800	17178223 intron
ENSMUSG000000021108	Prkch	11412	0.000213191	0.002158517	-0.529483371	348.8416253	226.224864 chr12	73577127	73579054 intergenic
ENSMUSG000000026770									

ENSMUSG000000024737	Slc15a3	14725	1.07609E-06	2.28704E-05	-0.527718538	726.734618	488.5243952	chr19	10841371	10845317	promoter
ENSMUSG00000004451	Ralb	7609	3.44982E-05	0.000459413	-0.527664043	456.3748806	302.2146495	chr1	119502586	119504684	promoter
ENSMUSG00000019505	Ubb	10434	3.95991E-06	7.02021E-05	-0.527126201	673.0028239	451.1318887	chr11	62553067	62555304	promoter
ENSMUSG00000039770	Ypel5	1187	1.28563E-06	2.66495E-05	-0.527077763	720.55954	483.9492969	chr17	72836705	72838738	promoter
ENSMUSG00000028163	Nfkb1	10046	0.000139446	0.001511213	-0.526922983	360.7836537	236.0769124	chr3	135698554	135700088	intergenic
ENSMUSG00000027459	Fam110a	9489	9.50878E-06	0.000150318	-0.526912909	559.4480674	373.5925377	chr2	151971146	151974125	promoter
ENSMUSG000000040033	Stat2	3567	7.34457E-05	0.000880679	-0.525959635	414.5050122	273.3590216	chr10	128270520	128272280	promoter
ENSMUSG00000030199	Etv6	9415	0.000131161	0.001432455	-0.525785051	405.2791323	265.3386649	chr6	134120678	134122486	intron
ENSMUSG000000072663	Spef2	10818	0.001143512	0.008571121	-0.525651964	236.0794314	149.0412375	chr15	9554756	9555923	intergenic
ENSMUSG00000098496	1810026B05R	2857	3.26734E-08	1.05261E-06	-0.525177198	104.080342	708.3670018	chr7	73586864	73591065	intergenic
ENSMUSG00000005055	Itga5	16113	0.000172148	0.001801248	-0.525095471	376.0703080	246.01616	chr15	103357859	103360740	intron
ENSMUSG00000007880	Arid1a	11364	2.37953E-07	6.09192E-06	-0.524919255	813.9778481	550.7520868	chr4	133728159	133732993	intron
ENSMUSG00000061393	Acvr2b	14732	0.000249318	0.002459863	-0.524754038	341.5184599	222.6937411	chr9	119401410	119404016	promoter
ENSMUSG00000042688	Mapk6	1399	5.53646E-07	1.28346E-05	-0.524746396	768.2029872	519.0045214	chr9	75400659	75404046	intron
ENSMUSG00000050965	Prkca	8756	3.31138E-09	1.32140E-07	-0.524681033	1163.922997	793.0027284	chr11	108220335	108226091	intron
ENSMUSG00000080712	Hist3h2bb-ps	9573	0.000736693	0.005983699	-0.524142534	260.5972563	166.999507	chr11	58952815	58954473	promoter
ENSMUSG00000026770	Il2ra	6537	1.62308E-07	4.35911E-06	-0.524127126	1115.506872	756.8408621	chr2	11639863	11642547	promoter
ENSMUSG000000021115	Vrk1	14585	3.30674E-06	5.98583E-05	-0.523961314	657.8341348	441.7963622	chr12	106027838	106032586	intron
ENSMUSG00000099025	Gm27162	8976	4.87232E-07	1.14616E-05	-0.523468156	815.1592547	552.3139187	chr9	32923775	32927390	promoter
ENSMUSG00000040270	Bach2	13239	5.34434E-05	0.000665107	-0.523140851	454.6821529	301.0221432	chr4	32312548	32315317	intron
ENSMUSG00000099025	Gm27162	11043	1.92479E-05	0.0002792	-0.522669574	564.7571086	377.5407169	chr9	32905747	32909251	intron
ENSMUSG00000067931	Zfp948	9696	0.000114817	0.001275872	-0.522604276	396.8301615	261.7352785	chr17	21566521	21568503	promoter
ENSMUSG000000105071	RP24-555M20	15821	0.000690091	0.005663343	-0.521383376	263.959109	169.9882407	chr5	113898783	113900830	intron
ENSMUSG00000021108	Prkch	9193	7.03901E-07	1.58708E-05	-0.520858859	818.1596732	553.4464279	chr12	73677343	73681215	intron
ENSMUSG00000056749	Nfil3	2428	7.94613E-13	6.49967E-11	-0.520617783	2228.713338	1534.127141	chr13	52974534	52981037	promoter
ENSMUSG00000098144	1700029N1R	9213	2.10216E-05	0.000301154	-0.52044111	520.9963719	348.5242916	chr13	44542230	44544113	intergenic
ENSMUSG00000026288	Inpp5d	14939	0.000284051	0.002736799	-0.520248238	363.0983031	237.3675496	chr1	87634102	87637099	intron
ENSMUSG00000079019	Ifi271a	5975	6.57558E-11	3.28102E-09	-0.519991188	1552.642648	1066.139621	chr12	103438770	103443662	promoter
ENSMUSG00000105941	RP24-122I22.6	4558	6.21869E-09	2.37576E-07	-0.519949063	1451.754226	991.8874001	chr3	89909665	89915056	promoter
ENSMUSG00000022108	Ptpn1	10032	8.28658E-11	4.63951E-09	-0.519383152	1527.42421	1049.560522	chr2	167956402	167961938	intron
ENSMUSG00000057963	Itpk1	15489	8.98911E-07	1.96237E-05	-0.518767474	741.7479703	502.9528765	chr12	102642796	102648681	promoter
ENSMUSG00000024772	Ehd1	15436	0.000309879	0.002939675	-0.518622855	356.1989188	232.6820541	chr19	6290800	6293148	promoter
ENSMUSG00000037991	Rmi2	14595	6.68557E-07	1.51835E-05	-0.51844812	861.3155523	585.2035904	chr16	10842278	10848198	intron
ENSMUSG00000086264	Gm15850	17208	1.27667E-07	3.52955E-06	-0.518436095	887.9603214	604.9580873	chr1	136127233	136130695	promoter
ENSMUSG00000014444	Tbx21	16145	7.46426E-06	0.000121075	-0.518379718	710.9781354	478.4324896	chr11	97102863	97108006	intron
ENSMUSG00000020380	Rad50	15236	0.001088386	0.000245719	-0.517719181	259.4998506	165.9419306	chr11	53655421	53656935	intron
ENSMUSG00000022463	Srebf2	4363	5.25318E-15	6.12757E-13	-0.517717781	2470.537438	1708.281686	chr15	82159268	82169618	intron
ENSMUSG00000018500	Adora2b	9094	3.13166E-08	1.0137E-06	-0.517031655	1046.2480403	714.8119256	chr11	62248262	62253183	promoter
ENSMUSG00000021003	Galc	16032	0.00091238	0.007108995	-0.517014205	256.5334693	165.0560833	chr12	98243476	98245992	intron
ENSMUSG00000010142	Tnfrsf13b	11193	1.48575E-06	3.01944E-05	-0.516422265	717.7305713	487.1478934	chr11	61110005	61114154	intergenic
ENSMUSG00000084493	Gm22106	8226	7.47083E-08	2.20468E-06	-0.515671835	1094.08822	746.8416173	chr15	73729990	73735810	promoter
ENSMUSG00000028163	Nfkb1	11088	0.000152236	0.001621306	-0.515419159	379.2340029	251.0587146	chr3	135602482	135604397	promoter
ENSMUSG00000009706	9530082P21R	15330	1.45545E-05	0.000217194	-0.515411157	602.8845863	405.2651703	chr17	23748870	23753885	promoter
ENSMUSG00000026657	Frdm4a	15159	0.000901689	0.00704239	-0.515286967	280.6431664	180.873328	chr2	4399972	4402782	promoter
ENSMUSG000000027580	Helz2	1109	1.93009E-15	2.39295E-13	-0.515149586	2630.149106	1822.082369	chr2	181236030	181243427	promoter
ENSMUSG00000048534	Amica1	11273	1.65641E-05	0.000244041	-0.514969472	543.7821231	366.1759021	chr9	45080840	45083144	promoter
ENSMUSG00000050379	42619	15038	0.000151957	0.001620076	-0.514642091	391.8320812	259.4470621	chrX	36982217	36984704	intron
ENSMUSG00000015165	Hnrnpl	785	9.83596E-11	5.40101E-09	-0.514448319	176.992596	1190.413538	chr7	28807631	28810574	promoter
ENSMUSG00000072437	Nanos1	7915	0.000512032	0.004423178	-0.513618251	343.7596351	224.8088939	chr19	60755940	60757376	promoter
ENSMUSG00000029528	Pxn	12553	0.000360516	0.003313074	-0.513573899	364.1624806	239.1283126	chr5	115520069	115522099	promoter
ENSMUSG00000030203	Ets1	6798	5.88841E-13	4.91857E-11	-0.51226889	2345.160102	1624.976065	chr9	32743955	32752120	intron
ENSMUSG00000053716	Dusp7	8608	5.49174E-12	3.85262E-10	-0.511824967	1872.031407	1295.230555	chr9	106368011	106374346	promoter
ENSMUSG00000027678	Ncoa3	14640	4.83079E-06	8.31698E-05	-0.511806973	672.9397853	456.3120426	chr2	165999012	166002937	intron
ENSMUSG000000101655	2310040G24R	10276	0.00021643	0.002186824	-0.511745026	358.6330168	237.5774124	chr6	86487042	86488553	promoter
ENSMUSG00000013089	Etv5	5517	7.72648E-06	0.000124744	-0.511704694	596.6597267	404.2443931	chr16	22437608	22439616	promoter
ENSMUSG000000041961	Znf3	16111	0.00110121	0.0083173	-0.511536438	274.4969988	177.0491519	chr11	5415043	5416605	intron
ENSMUSG00000017132	Cyth1	9965	1.96049E-05	0.000283752	-0.511323966	686.3764007	463.2830238	chr11	118229471	11823348	intron
ENSMUSG00000058833	Spo11	13330	0.000879807	0.006887865	-0.511229688	277.2197757	180.3077455	chr2	172976844	172978374	promoter
ENSMUSG000000108103	RP23-418F10.	14571	6.87035E-06	0.000112863	-0.510508036	653.3295025	443.3949931	chr6	112944824	112948386	promoter
ENSMUSG00000037946	Fgd3	15048	0.000887481	0.006942422	-0.510241178	265.1701449	172.3745881	chr13	49270803	49272410	intron
ENSMUSG000000042351	Grap2	14758	6.93034E-08	2.06997E-06	-0.509994857	1226.574928	841.9235163	chr15	80612247	80618342	intergenic
ENSMUSG00000021767	Kat6b	15209	3.10845E-05	0.000419417	-0.509873835	513.5366938	346.0520797	chr14	21521978	21525754	intron
ENSMUSG000000032213	AA467197	7885	0.00030364	0.000449895	-0.509312236	498.7709145	336.2732695	chr2	122651513	122653432	intergenic
ENSMUSG00000001847	Rac1	150	0.001123413	0.008449385	-0.508987216	286.2238224	185.2421375	chr5	143520049	143521405	promoter
ENSMUSG000000043051	Disc1	15296	0.000174125	0.001810707	-0.5089849028	381.5657164	254.0229156	chr8	125052224	125055291	promoter
ENSMUSG00000057193	Slc44a2	12820	0.000102998	0.001168133	-0.508814553	437.1713147	292.2767366	chr9	21331432	21333644	intergenic
ENSMUSG0000000434135	Sik3	14586	9.61305E-05	0.001103681	-0.508699708	430.1761743	287.9346992	chr9	46070592	46073458	intron
ENSMUSG000000088325	Gm25668	8399	2.7								

ENSMUSG000000026778	Prkcq	14561	3.5242E-08	1.12964E-06	-0.503450916	1161.897026	802.9056116	chr2	11142308	11146735	intergenic
ENSMUSG000000053469	Tg	15782	0.000104472	0.001181562	-0.503450436	467.840525	314.342648	chr15	66676909	66680068	intron
ENSMUSG000000059866	Trip2	10830	5.93011E-05	0.000728351	-0.503209733	507.3853084	343.2486761	chr5	34501965	34504188	promoter
ENSMUSG000000085148	Mir22hg	4824	5.23755E-06	0.00008893	-0.502938795	850.3300989	581.7132705	chr11	75457390	75460508	promoter
ENSMUSG000000040296	Ddx58	8920	0.000242897	0.002408729	-0.502450122	376.0191885	251.1936446	chr4	40238088	40239783	promoter
ENSMUSG000000058655	Eif4b	15950	2.25251E-06	4.35267E-05	-0.502256448	793.5185925	544.6274231	chr15	102087488	102095373	intron
ENSMUSG000000033909	Usp36	15418	1.06781E-08	3.8837E-07	-0.501615423	1570.208486	1087.395952	chr11	118256167	118267939	promoter
ENSMUSG000000028886	Eya3	15199	0.000797195	0.006352106	-0.50091929	299.3992586	197.0980414	chr4	132647772	132649962	intron
ENSMUSG000000037979	Parp11	4355	4.76399E-13	4.04795E-11	-0.500773168	2238.233115	1565.182452	chr6	127445104	127452490	promoter
ENSMUSG00000021182	Ccdc88c	8622	1.4113E-10	5.76003E-09	-0.500762311	1760.963351	1227.849911	chr12	100994974	101002339	intron
ENSMUSG000000090024	Gm16350	11300	7.18295E-05	0.000864981	-0.500757019	496.7895079	335.6589768	chr8	14961879	14964500	promoter
ENSMUSG00000018341	Il1rb2	17463	0.000314393	0.002969632	-0.500572655	353.3187578	236.1382442	chr6	67367466	67368756	intron
ENSMUSG000000101970	1810026B05R	14603	0.000562905	0.004785404	-0.499732141	460.5187703	306.3236261	chr7	73546728	73549312	promoter
ENSMUSG000000098496	1810026B05R	16994	7.34762E-08	2.1781E-06	-0.499637722	1137.867432	789.0054838	chr7	73582851	73586711	intergenic
ENSMUSG000000097990	Gm19557	14457	3.28255E-11	2.01586E-09	-0.49901071	1710.1460151	1194.406919	chr19	47507439	47514643	promoter
ENSMUSG00000029468	P2rx7	15215	6.26662E-07	1.43465E-05	-0.498768237	852.2707489	588.5248505	chr5	122649687	122655162	promoter
ENSMUSG000000034135	Sik3	15232	0.001216034	0.008981166	-0.498688904	260.6877946	171.0508035	chr9	46066371	46068198	intron
ENSMUSG000000017670	Elmo2	3325	2.8118E-13	2.4986E-11	-0.498448125	2529.231774	1770.449381	chr2	165317303	165326494	promoter
ENSMUSG000000045867	Cradd	14976	1.42318E-05	0.000213836	-0.498388553	705.3751975	482.2538697	chr10	95141946	95147996	intergenic
ENSMUSG000000049744	Arhgap15	8193	0.000028411	0.000386519	-0.498286729	542.1969978	369.5707604	chr2	43738018	43740170	intergenic
ENSMUSG00000031925	Maml2	8053	1.36484E-05	0.000205983	-0.498141788	688.7763706	471.8471658	chr9	13639974	13643464	intron
ENSMUSG000000030748	Il1ra	162	3.6774E-24	1.47944E-21	-0.498017135	6607.709319	4654.660525	chr7	125549766	125564058	promoter
ENSMUSG000000056749	Nfl3	16906	8.77104E-07	1.91902E-05	-0.497880769	847.567976	585.5974486	chr13	52981208	52984047	promoter
ENSMUSG000000040430	Pitpnc1	7836	3.94117E-08	1.25014E-06	-0.497816147	1128.01822	782.7704228	chr11	107446680	107451101	intron
ENSMUSG00000030166	Rad52	16338	0.000146749	0.001572206	-0.497369919	426.0730412	287.7616355	chr6	119904262	119907555	promoter
ENSMUSG000000041765	Ubac2	16017	7.30652E-05	0.000877218	-0.497267615	500.9608974	339.7802197	chr14	121892973	121895827	intron
ENSMUSG000000020015	Cdk17	11545	0.000999298	0.007673998	-0.496879432	334.2517047	220.6289885	chr10	9322831	93229645	intron
ENSMUSG000000021109	Hif1a	14147	1.56976E-09	6.80103E-08	-0.496708765	1718.058216	1199.438542	chr12	73897463	73906205	promoter
ENSMUSG000000026347	Tmem163	8342	1.90786E-06	0.000277358	-0.496599881	638.1044033	436.0410239	chr1	127676146	127679363	promoter
ENSMUSG000000106776	RP23-4208.5	11969	8.81359E-05	0.001029889	-0.496454853	507.9373559	344.5038489	chr5	65855486	65858229	promoter
ENSMUSG00000026811	St6galnac6	1706	1.63931E-09	7.04046E-08	-0.496086453	1453.593901	1014.2722372	chr2	32606356	32611923	promoter
ENSMUSG000000040274	Cdk6	14896	0.000041092	0.000531876	-0.495980609	579.0854999	394.3678119	chr5	3512863	3516850	intron
ENSMUSG000000039157	Fam102a	9585	4.06299E-13	3.51288E-11	-0.495924868	2300.430944	1613.72991	chr2	32535335	32542166	promoter
ENSMUSG000000022139	Mbnl2	6888	2.02424E-08	6.85633E-07	-0.495337026	1168.921077	814.3926553	chr14	120275731	120279353	promoter
ENSMUSG000000039157	Fam102a	17685	0.000509683	0.004408682	-0.494924143	355.0953935	236.9504934	chr2	32542343	32543849	intron
ENSMUSG000000085509	Gm1521	9528	8.23820E-07	1.80842E-05	-0.494500233	896.139088	621.1091977	chr11	95336961	95341608	promoter
ENSMUSG00000020564	Atxn7l1	3487	6.83108E-09	2.58964E-07	-0.494486807	1505.49406	1051.442614	chr12	33171128	33175374	intron
ENSMUSG000000047881	Rel1	7071	8.47066E-05	0.000994533	-0.49375963	485.2044148	329.9145702	chr5	63966921	63968872	promoter
ENSMUSG000000040430	Pitpnc1	9590	0.000155951	0.001651051	-0.493615547	469.5109709	318.3166946	chr11	107463255	107465418	intron
ENSMUSG000000039844	Rapgef1	14967	0.000189878	0.001953588	-0.493172329	489.3416761	330.8140186	chr2	29626776	29629472	intron
ENSMUSG00000023026	Dip2b	11267	0.000815491	0.006471732	-0.493007399	315.9824321	210.5289435	chr15	100079828	100081423	intron
ENSMUSG000000025231	Sufu	15826	0.000263326	0.0025736	-0.492860356	401.1930632	270.4684188	chr19	46472852	46475543	intron
ENSMUSG000000080929	Gm12891	4676	2.87059E-06	5.30346E-05	-0.492654418	779.2330044	538.4155602	chr4	122931735	122934054	intergenic
ENSMUSG000000049109	Themis	7751	3.03212E-08	9.86339E-07	-0.49225671	1798.278806	1256.227151	chr10	28668020	28673669	promoter
ENSMUSG000000027678	Ncoa3	16393	0.000417917	0.00376183	-0.492238183	359.6289379	241.5501243	chr2	166021077	166023783	intron
ENSMUSG000000083450	Gm14619	8262	0.001140701	0.00855982	-0.49201758	284.1295956	187.9342439	chrX	42342488	42343587	intergenic
ENSMUSG000000032387	Rbpms2	15122	0.000180702	0.001869907	-0.492016114	437.1660969	296.5929066	chr9	65628984	65632500	promoter
ENSMUSG000000028581	Laptm5	11363	7.87326E-05	0.000396144	-0.491444356	539.2433626	368.3905204	chr4	130923365	130926155	intron
ENSMUSG000000020009	Ifngr1	6493	0.000113823	0.001266358	-0.491123704	464.1507373	315.8922135	chr10	19591961	19593232	promoter
ENSMUSG000000066278	Vps37b	19639	5.74459E-08	1.75843E-06	-0.490594199	1150.730497	803.0169088	chr5	124013817	124020842	intron
ENSMUSG000000037940	Inpp4b	18485	5.29655E-09	2.06754E-07	-0.490380436	1489.199565	1043.435859	chr8	81776275	81783921	intron
ENSMUSG000000100798	Gm19589	10398	0.000859614	0.006753914	-0.490353548	332.1522601	221.9932239	chr1	88575339	88576846	intergenic
ENSMUSG000000040565	Btfaf1	12585	0.000236586	0.002356658	-0.49012089	409.1224968	277.1722708	chr19	36923131	36942597	promoter
ENSMUSG000000030257	Srgap3	16201	0.000395997	0.003589096	-0.48991292	365.3906705	246.457749	chr6	112851586	112854686	intron
ENSMUSG000000041235	Chd7	15115	1.624349E-08	5.65438E-07	-0.489524965	1295.357373	907.1127396	chr4	8797470	8807049	intron
ENSMUSG000000020564	Atxn7l1	9975	0.000791995	0.006320892	-0.488790892	361.7454466	241.7586525	chr12	33158544	33160218	intron
ENSMUSG000000035671	Zswim4	2530	8.06499E-10	3.77637E-08	-0.488578353	1734.621504	1218.023933	chr8	84231611	84237050	promoter
ENSMUSG000000035298	Klh35	5526	1.3731E-06	2.81371E-05	-0.487828764	884.2245592	614.9205329	chr7	99465687	99469937	promoter
ENSMUSG000000106209	Ebf1	2744	1.83883E-07	4.85259E-06	-0.487740159	997.4000985	696.4475315	chr5	121382957	121385650	promoter
ENSMUSG000000057098	Ebf1	7352	4.79399E-08	8.26806E-05	-0.48760128	735.5864985	510.3449794	chr11	44617327	44620608	promoter
ENSMUSG000000018932	Map2k3	10419	3.38688E-06	6.11049E-06	-0.487469257	865.4020106	600.0039309	chr11	60935631	60940031	promoter
ENSMUSG000000100150	Gm19585	8291	7.33034E-09	2.74721E-07	-0.487394738	1608.130209	1128.419047	chr17	52147842	52154162	promoter
ENSMUSG000000026395	Ptprc	19422	0.000108351	0.001214973	-0.487265446	476.9194566	326.5319783	chr1	138149104	138151673	intron
ENSMUSG000000073485	H3f3aos	3673	3.87535E-06	6.88682E-05	-0.487211447	842.6158701	585.4121185	chr1	180813749	180816328	promoter
ENSMUSG000000014496	Ankrd28	10536	0.000261208	0.000360229	-0.487175539	583.993392	402.5230985	chr14	31779640	317852238	intron
ENSMUSG000000042272	Sestd1	14762	0.000173298	0.001811356	-0.487072595	430.0633541	293.3956448	chr2	77268842	77271843	intron
ENSMUSG000000082152	Gm13655	16377	8.94452E-05	0.0010421	-0.485662799	561.4124099	385.745069	chr2	75605981	75610842	intergenic
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ENSMUSG000000092218	Gm20529	2457	4.44969E-11	2.65809E-09	-0.479971631	1869.038426	1324.456843	chr9	108049266	108052964	promoter
ENSMUSG00000021108	Prkch	10059	5.06031E-05	0.000633358	-0.479789638	641.7837554	443.9141842	chr12	73776250	73779272	intron
ENSMUSG000000107965	RP23-402K14.	14991	5.67936E-06	9.56884E-05	-0.479448517	768.3210252	535.9297473	chr6	125252943	125259443	promoter
ENSMUSG00000039474	Wfs1	14716	0.000225799	0.002266381	-0.479060597	520.1815274	357.1089008	chr5	36985752	36988959	promoter
ENSMUSG00000026779	Mastl	6670	0.000804386	0.006396473	-0.478596132	332.1233497	224.7611631	chr2	23154671	23155904	promoter
ENSMUSG00000071176	Arhgef10	13244	0.000381544	0.00347087	-0.478340366	418.0189412	285.0931619	chr8	14966275	14968724	intron
ENSMUSG00000042331	Spec1	7911	0.000351477	0.0032468	-0.478298691	390.185328	266.6797023	chr11	62185268	62187130	intron
ENSMUSG00000020717	Pecam1	9494	8.19005E-07	1.79989E-05	-0.478160217	899.5454145	631.6372307	chr11	106671207	106676195	intron
ENSMUSG00000068227	Il2rb	15404	0.000267998	0.002610197	-0.477812729	618.103057	423.3447689	chr15	78483062	78486747	intron
ENSMUSG00000018334	Ksr1	15047	0.001129189	0.008486354	-0.477375836	313.6218082	211.2675945	chr11	79118352	79119900	intron
ENSMUSG00000057329	Bcl2	7963	1.29072E-06	2.66707E-05	-0.477307084	995.3466283	699.5085287	chr1	106617435	106620613	intron
ENSMUSG00000043488	Frdm8os	14277	4.4938E-14	4.49677E-12	-0.47712593	2749.323864	1957.79217	chr19	5846058	5853944	promoter
ENSMUSG00000040841	Six5	4943	1.54335E-07	4.18488E-06	-0.476975636	1290.947086	909.6558804	chr7	19094144	19098488	promoter
ENSMUSG00000027333	Smax	1067	1.38371E-13	1.28061E-11	-0.476487058	2608.048315	1857.433321	chr2	131489640	131496696	promoter
ENSMUSG0000013525	Bcas1	14693	0.000165865	0.001741057	-0.476164829	489.1435355	336.8896168	chr2	170343400	170346211	intergenic
ENSMUSG00000097039	Pvt1	15505	0.000032001	0.000430604	-0.475810732	676.2792662	470.6791921	chr15	62260288	62265646	intron
ENSMUSG00000053469	Tg	1155	5.04494E-11	2.95107E-09	-0.475725023	1977.222513	1405.945708	chr15	66862088	66865181	intergenic
ENSMUSG00000098886	Mir385	16252	0.000161485	0.001701415	-0.475281665	465.4642477	321.4771573	chr9	58222985	58226394	promoter
ENSMUSG00000020611	Gna13	18711	2.73797E-05	0.000374817	-0.47521645	608.3524221	423.9498245	chr11	109375454	109378903	intron
ENSMUSG00000106808	RP23-425N12.	14815	0.00096155	0.00743918	-0.474835346	320.215495	217.0733328	chr5	53356917	53359273	intergenic
ENSMUSG00000022565	Plec	1551	5.45497E-18	9.60123E-16	-0.474294815	5794.161455	4142.137727	chr15	76187767	76204115	promoter
ENSMUSG00000068220	Lgals1	4588	9.05871E-05	0.00105314	-0.474206298	685.9393628	475.2393548	chr15	78921373	78924757	promoter
ENSMUSG00000039262	Prrc2b	15214	0.000051973	0.000648035	-0.473881958	585.3344021	406.8896686	chr2	32176399	32180174	intron
ENSMUSG0000001924	Uba1	15467	0.000182449	0.00188403	-0.473543699	476.9365207	329.939103	chrX	20666027	20671529	intron
ENSMUSG00000043050	Tnp2	9967	0.000102347	0.001162865	-0.473266728	565.8658499	392.5483865	chr16	10786604	10789705	promoter
ENSMUSG00000026558	Uck2	11068	9.31616E-06	0.00014751	-0.473117123	729.2815362	511.3289576	chr1	167268636	167272924	intron
ENSMUSG00000055044	Pdlim1	7680	9.47625E-05	0.001089879	-0.47310948	532.9606822	369.8787541	chr19	40269045	40271539	promoter
ENSMUSG00000022337	Ankrd33b	7440	6.3756065	0.000481968	-0.473070744	650.0857778	452.8054525	chr15	31364927	31368045	promoter
ENSMUSG0000002107	Celf2	7446	2.11399E-09	8.81037E-08	-0.472936641	1568.569772	1115.181738	chr2	6702677	6708989	intron
ENSMUSG00000021998	Lcp1	12983	0.001335199	0.009705303	-0.472885355	305.4837984	206.8028935	chr14	75197300	75199249	promoter
ENSMUSG00000031934	Panx1	15770	1.59494E-05	0.000236044	-0.472757222	662.509408	463.7777437	chr9	14997642	15003285	intergenic
ENSMUSG00000019843	Fyn	14858	0.000139195	0.001509325	-0.472090888	536.3840729	371.2429895	chr10	39465052	39469431	intron
ENSMUSG00000030612	Mrpl46	11350	0.001155852	0.008640618	-0.47194072	334.7437421	227.0616459	chr7	78729763	78731962	intergenic
ENSMUSG000000088749	Gm23218	10094	0.000105881	0.001193388	-0.471924017	534.0812698	370.8136668	chr15	6522812	6526094	intergenic
ENSMUSG00000030878	Cdr2	4325	4.33056E-05	0.00055398	-0.471901167	605.2058641	422.3389272	chr7	120980476	120982291	promoter
ENSMUSG00000019823	Mical1	2073	4.57832E-11	2.72666E-09	-0.471082079	2094.11534	1493.59737	chr10	41473148	41480870	promoter
ENSMUSG00000026923	Notch1	1595	1.92749E-12	1.46705E-10	-0.471027838	3715.372189	2652.604272	chr2	26479434	26493557	intron
ENSMUSG00000082116	Gm12188	4652	7.12E-11	4.03323E-09	-0.470961273	2134.577352	1523.338845	chr11	49085096	49092164	promoter
ENSMUSG00000050439	Enthd1	16840	7.89485E-16	1.0172E-13	-0.470918722	4199.920978	3009.799037	chr15	80570107	80580308	intergenic
ENSMUSG00000085205	Gm13185	12032	0.000161984	0.001704855	-0.470789089	480.3599113	332.8665049	chr2	3750803	3753831	promoter
ENSMUSG00000025231	Sufu	16189	4.77678E-06	8.25282E-05	-0.470387833	1031.912673	726.2407415	chr19	46465280	46472574	intron
ENSMUSG00000045679	Polc3	4052	1.11328E-06	2.34718E-05	-0.470244076	902.2563452	637.3325718	chr12	16997101	17000456	promoter
ENSMUSG00000010142	Trfrsf13b	1293	5.12777E-12	3.64923E-10	-0.470105814	254.799081	1840.703022	chr11	61139722	61147571	promoter
ENSMUSG00000032966	Fkbp1a	15245	0.000316506	0.002988166	-0.469462456	460.5803982	318.7092181	chr2	151556816	151560770	intron
ENSMUSG00000032776	Mctp2	2839	8.08517E-08	2.35774E-06	-0.469437402	1190.7161215	845.4274371	chr7	72303441	72308184	promoter
ENSMUSG00000068680	Rnasel	10441	0.000552854	0.004717924	-0.469295292	382.3241508	262.6333922	chr1	153751512	153753331	promoter
ENSMUSG00000020359	Phykl	3848	1.46445E-11	9.49629E-10	-0.468446676	2186.231984	1564.197139	chr11	51580989	51588574	promoter
ENSMUSG00000031959	Wdr59	17092	0.000477876	0.001905595	-0.467681475	402.8004704	277.5157289	chr8	111525949	111527246	intergenic
ENSMUSG00000019961	Tmopo	12320	0.00063783	0.005312018	-0.467625242	385.7764519	264.9952068	chr10	91154579	91157250	intron
ENSMUSG00000016520	Lnx2	13225	0.001047785	0.007996513	-0.467447423	360.319116	245.732699	chr5	147057973	147060286	intron
ENSMUSG00000018459	Slc13a3	8532	3.61538E-05	0.000476404	-0.466929685	615.9813035	431.8339165	chr2	165408145	165411211	promoter
ENSMUSG00000089015	Gm24996	2993	1.63528E-05	0.000241109	-0.46675614	700.3548352	492.4493763	chr2	75685872	75688917	promoter
ENSMUSG00000056493	Foxk1	11937	1.07971E-07	3.03196E-06	-0.466662507	1145.325699	814.52892	chr5	142416224	142422538	intron
ENSMUSG00000070394	Tmem256	7429	1.95051E-05	0.000282516	-0.466653207	694.2034498	488.4030662	chr11	69838536	69840682	promoter
ENSMUSG00000047888	Trrc6b	5419	5.07765E-05	0.000635125	-0.46636126	576.6925086	404.1339958	chr15	80743846	80746416	intron
ENSMUSG00000045591	Olig3	6790	6.03191E-10	2.83869E-08	-0.465876284	1912.250715	1368.6226246	chr10	19183510	19189924	intergenic
ENSMUSG00000059027	9630013D21R	11003	0.000379239	0.003453918	-0.465395001	411.4883385	285.0931619	chr4	109656224	109658380	promoter
ENSMUSG00000025743	Sdc3	5082	0.000360445	0.003313074	-0.465309349	584.9092104	404.6001175	chr4	130791951	130793801	promoter
ENSMUSG00000027514	Zbp1	16966	1.55062E-07	4.19723E-06	-0.463898851	1283.114819	914.0141881	chr2	173214599	173218908	promoter
ENSMUSG00000001424	Snd1	11214	2.93639E-05	0.000398383	-0.463221495	644.2794813	453.6299686	chr6	28553394	28556185	intron
ENSMUSG00000028860	Syt1	12918	4.31236E-05	0.00055202	-0.463163594	645.150736	453.3097079	chr4	133260064	133263811	promoter
ENSMUSG00000052949	Rnf157	14398	3.52044E-05	0.000465449	-0.462792203	723.7416368	510.346314	chr11	116377663	116379603	intron
ENSMUSG00000038375	Trp53inp2	4742	0.000774651	0.002625316	-0.462628499	368.0504089	253.616791	chr2	155381819	155383770	promoter
ENSMUSG00000037331	Larp1	16346	0.000161679	0.001702551	-0.462627235	490.5475842	343.0265469	chr11	58015991	58018997	intron
ENSMUSG000000040270	Bach2	15291	0.000283332	0.002732957	-0.462293048	465.6111961	324.2328302	chr4	32460591	32463990	intron
ENSMUSG000000075010	AW112010	5505	0.00035882	0.003302245	-0.462270619	425.9260928	296.2494485	chr19	11050633	11052978	promoter
ENSMUSG00000022174	Dad1	19117	7.89098E-07	1.74764E-05	-0.46219997	995.1878337	708.6859272	chr14	54233592	54238486	intron
ENSMUSG00000038264	Sema7a	16899	5.62292E-06	0.00009482	-0.462175813	817.8264304	579.7317131				

ENSMUSG000000083209	Gm11969	9247	0.000104903	0.001184395	-0.457672416	545.9379778	384.1832371	chr11	6178890	6181397	promoter
ENSMUSG000000027510	Rbm38	11306	0.000486386	0.004250055	-0.457372328	420.5094493	292.8055248	chr2	173045690	173048173	intergenic
ENSMUSG000000102737	1700016A09R	17060	4.44556E-06	7.75534E-05	-0.457012296	1003.409753	713.7911483	chr8	120535277	120538651	promoter
ENSMUSG00000021003	Galc	1023	2.38603E-07	6.10063E-06	-0.456958269	1235.189322	884.4935073	chr12	98256533	98260281	promoter
ENSMUSG000000032724	Abtb2	15981	3.63632E-05	0.0004747422	-0.455949274	745.8751453	527.9979245	chr2	103598103	103603503	intron
ENSMUSG00000039637	Coro7	14059	8.88706E-07	1.94225E-05	-0.455672589	1023.207741	731.6622187	chr16	4675434	4681129	promoter
ENSMUSG00000041235	Chd7	6983	4.70883E-11	2.79594E-09	-0.454989102	2317.434091	1674.763761	chr4	8835988	8842913	promoter
ENSMUSG00000029135	Fosl2	134	1.53344E-07	4.16372E-06	-0.454885584	1259.758339	904.7754577	chr5	32140005	32144683	promoter
ENSMUSG00000047153	Khnyn	823	1.43766E-09	6.29078E-08	-0.45426948	2121.422787	1529.877896	chr14	55881909	55888824	promoter
ENSMUSG00000052681	Rap1b	15609	0.000476012	0.004178095	-0.453920576	417.3628913	291.9319438	chr10	117834095	117837809	intron
ENSMUSG00000068227	Il2rb	16812	1.78362E-10	9.35121E-09	-0.453641374	2413.198355	1743.052115	chr15	78487579	78493626	promoter
ENSMUSG00000025231	Sufu	8776	9.66144E-05	0.001107302	-0.4533084	573.6194247	405.8307576	chr19	46476541	46478870	intron
ENSMUSG00000025140	Pycr1	6934	2.72057E-07	6.81457E-06	-0.452957206	1226.291467	880.1378689	chr11	120639080	120643712	promoter
ENSMUSG000000086569	Rab11fip4os2	16497	3.51447E-05	0.000465009	-0.452945936	686.4039005	487.4545524	chr11	79667866	79672628	intron
ENSMUSG00000014787	Slc9a5	5151	0.000041981	0.00054197	-0.452653755	799.0298515	566.6919999	chr8	105348178	105350984	promoter
ENSMUSG00000046718	Bst2	4353	3.83464E-09	1.52404E-07	-0.451766963	1874.704402	1354.61404	chr8	71534125	71539608	promoter
ENSMUSG00000020396	Nefh	12045	0.000634309	0.005289398	-0.451485948	412.2519907	288.0941619	chr11	4946232	4948742	promoter
ENSMUSG00000069769	Msi2	16424	0.000928945	0.007209561	-0.451370435	391.2717874	272.3259779	chr11	88583004	88585673	intron
ENSMUSG00000042842	Serpinb6b	4746	3.71423E-06	6.64416E-05	-0.450871935	934.7036306	670.1486453	chr13	32965221	32969506	promoter
ENSMUSG00000033871	Ppargc1b	10844	0.000594208	0.000507966	-0.450492151	430.029226	301.4514658	chr18	61399176	61401372	promoter
ENSMUSG00000026581	Sell	5057	1.12806E-12	8.93068E-11	-0.450491879	4207.11567	3055.480425	chr1	164061090	164071773	promoter
ENSMUSG00000057963	Itpk1	9465	0.000261382	0.002555864	-0.450092335	480.6092443	339.1396996	chr12	102670598	102672834	intron
ENSMUSG00000052627	Zfp287	6004	0.000976417	0.007254673	-0.450082619	390.6944295	272.1774469	chr11	62730522	62732382	promoter
ENSMUSG00000039568	Ubald1	14390	1.22008E-06	2.54754E-05	-0.449970311	1159.537813	833.4970351	chr16	4876003	4880469	promoter
ENSMUSG00000068663	Clec1a	12244	4.65981E-05	0.000589594	-0.449845054	681.6224355	485.6596597	chr16	10665486	10668995	intron
ENSMUSG000000106918	Mprl33	1037	6.10093E-10	2.91205E-08	-0.449817602	2426.08882	1758.260051	chr5	31594986	31601235	promoter
ENSMUSG00000093147	Gm23369	16328	7.74911E-11	2.26981E-06	-0.449627667	1507.161684	1086.974892	chr2	32591158	32601088	promoter
ENSMUSG000000107846	RP24-430K15.	14730	8.32414E-06	0.000132977	-0.449471193	1014.724642	726.3634051	chr6	113673925	113680870	promoter
ENSMUSG00000017639	Rab11fip4	6157	2.00806E-08	6.81323E-07	-0.44896678	1704.053268	1230.421589	chr11	79658835	79664926	promoter
ENSMUSG000000047731	Wbp1l	6223	9.79483E-06	0.000154324	-0.448304964	894.8478594	640.6674329	chr19	46620187	46624012	promoter
ENSMUSG00000032402	Smad3	5948	3.66509E-06	1.16906E-06	-0.447733848	1479.893583	1069.595811	chr9	63754146	63759685	promoter
ENSMUSG00000048076	Arf1	14715	1.18424E-05	0.000181956	-0.447572127	794.9724229	569.2023455	chr11	59220397	59226324	promoter
ENSMUSG00000082292	Gm12250	4913	1.10348E-08	3.99868E-07	-0.447286344	1669.130169	1209.302856	chr11	58182482	58186614	promoter
ENSMUSG00000060131	AtpBb4	9747	0.00137499	0.009943208	-0.447414415	468.3273446	326.0999864	chr2	126497993	126500403	promoter
ENSMUSG00000021108	Prkch	1539	3.44318E-10	1.72272E-08	-0.447112955	2044.08518	1484.101046	chr12	73598526	73603734	intron
ENSMUSG00000079499	6530402F18Ri	1621	5.774408E-08	1.76472E-06	-0.446697717	1344.822022	973.0160813	chr2	29249288	29253832	promoter
ENSMUSG00000026558	Uck2	19519	0.001377809	0.009956289	-0.446595551	393.6428469	273.8878098	chr1	167273229	167276012	intron
ENSMUSG00000021460	Auh	16888	7.87907E-07	1.74517E-05	-0.446449712	1099.34748	793.0285958	chr13	52925765	52929643	promoter
ENSMUSG00000030268	Bcat1	14192	0.000132952	0.001450405	-0.446218068	580.3822963	412.2156842	chr6	14489862	144902696	intergenic
ENSMUSG00000039316	Rftn1	15816	0.000312723	0.002958685	-0.4460427	483.5576616	341.8708397	chr17	50158054	50161615	intron
ENSMUSG00000026826	Nr4a2	3889	1.0315E-11	6.82347E-10	-0.445707637	2533.816509	1843.597629	chr2	57109487	57117616	promoter
ENSMUSG000000079484	Phyhd1	9561	6.13969E-06	0.000102309	-0.445696757	930.3786373	668.3401516	chr2	30262926	30267391	promoter
ENSMUSG000000099025	Gm27162	8749	3.78678E-06	0.000120073	-0.445500071	965.3386858	693.5214642	chr9	32937353	32941447	intergenic
ENSMUSG00000022565	Plec	5374	3.26788E-08	1.05261E-06	-0.445342572	1554.277555	1125.242314	chr15	76204309	76210312	promoter
ENSMUSG00000003865	Gys1	15727	0.000926769	0.007195509	-0.445182741	393.0602712	275.2547725	chr7	45447119	45450224	promoter
ENSMUSG00000028937	Acot7	17180	0.000312934	0.002958685	-0.444867252	488.690844	345.8312852	chr4	152185860	152188138	promoter
ENSMUSG00000037111	Setd7	10594	4.39221E-05	0.000559326	-0.444758405	668.7802421	478.3288868	chr3	51552106	51555481	promoter
ENSMUSG00000043017	Ptgir	8759	1.55217E-07	4.19723E-06	-0.44450067	1473.70144	1065.807094	chr7	16904602	16910726	promoter
ENSMUSG00000075036	Gm10805	9985	0.000143506	0.00154756	-0.444208711	664.1836609	472.0062685	chr2	91921400	91924126	promoter
ENSMUSG00000044197	Gpr146	1464	9.65645E-21	2.60764E-18	-0.443764248	6435.994007	4710.529158	chr5	139373864	139390388	promoter
ENSMUSG00000047030	Spata2	15948	2.31566E-05	0.000326762	-0.443345616	806.7950026	578.3170776	chr2	167484487	167489184	promoter
ENSMUSG00000059586	Nsmce2	5486	2.31509E-06	4.44809E-05	-0.44267056	1029.808011	744.1350115	chr15	59594723	59598968	intron
ENSMUSG000000040409	Lck	476	5.96532E-12	4.11169E-10	-0.44090793	2959.540654	2163.374021	chr4	129569607	129575328	promoter
ENSMUSG00000097888	Gm26682	10699	0.000479146	0.00419982	-0.44037995	493.1115665	350.0861234	chr18	5161721	5164076	promoter
ENSMUSG000000069874	Irgm2	6995	0.000579011	0.004907158	-0.440323239	441.3768324	312.6949517	chr11	58210251	58211781	intron
ENSMUSG00000026778	Prkcb	11036	1.46309E-05	0.000218169	-0.440077155	802.3809087	577.9354857	chr2	11214774	11219342	intron
ENSMUSG00000017639	Rab11fip4	7372	1.26915E-06	2.63633E-05	-0.439669639	1052.190852	762.0932795	chr11	79648806	79653467	intron
ENSMUSG00000007659	Bcl2l1	14756	7.03437E-07	1.58708E-05	-0.439658197	1200.630772	869.9287614	chr2	152791227	152798983	intron
ENSMUSG00000028954	Nub1	3509	1.67882E-07	4.50266E-06	-0.439650922	1266.616966	920.1620499	chr5	24685906	24690403	promoter
ENSMUSG000000041920	B16a6	1735	1.31523E-09	5.86589E-08	-0.439143746	1846.03747	1347.088342	chr11	109470318	109475351	promoter
ENSMUSG000000017929	B4gal5t	4320	1.55077E-06	0.000301258	-0.438950579	1069.939177	775.0076598	chr2	16734549	167349199	promoter
ENSMUSG00000005034	Prkacb	13123	0.000145882	0.001568037	-0.438523719	624.2283534	447.3445069	chr3	146777866	146781746	promoter
ENSMUSG000000026875	Traf1	15832	7.70165E-05	0.000918468	-0.438386471	660.3246429	473.8151222	chr2	34944702	34950051	intron
ENSMUSG000000059248	42622	8941	1.44201E-14	2.94584E-05	-0.438330002	1128.510257	817.6771163	chr11	117263878	117268668	promoter
ENSMUSG000000048251	Bcl1b	7540	1.20259E-14	1.33183E-12	-0.437895111	3815.721613	2799.612217	chr12	107918894	107923823	intron
ENSMUSG00000043036	Ccdc63	3360	6.15397E-09	2.36018E-07	-0.437467075	1779.236431	1298.122492	chr5	122143050	122147736	intergenic
ENSMUSG000000073147	5031425E22R	3970	1.36498E-08	4.8222E-07	-0.437410074	1805.578279	1318.306312	chr5	23414041	23421277	intron
ENSMUSG00000020401	Fam71b	6255	1.76668E-08	6.09895E-07	-0.4						

ENSMUSG000000083786	Rps18-ps2	16903	1.3771E-06	2.81897E-05	-0.435277062	1057.68097	769.0669915	chr4	8926825	8928891	intergenic
ENSMUSG000000029478	Ncor2	14905	1.37074E-06	2.81179E-05	-0.435262841	1061.456078	771.9575943	chr5	125048603	125056698	promoter
ENSMUSG000000030268	Bcat1	6338	0.000509117	0.004407265	-0.43514609	475.2385752	339.0415687	chr6	144943143	144944798	intergenic
ENSMUSG000000032265	Fam46a	6310	5.82059E-09	2.24104E-07	-0.434725291	1760.645762	1288.526703	chr9	85323733	85328789	promoter
ENSMUSG000000037754	Ppp1r16b	3873	8.12391E-05	0.000961264	-0.434323626	684.0209947	492.190448	chr2	158671855	158676117	intron
ENSMUSG000000037280	Galnt6	5596	3.51399E-07	8.58381E-06	-0.433973802	1231.159663	897.9230747	chr15	100726735	100732740	promoter
ENSMUSG00000005103	Wdr1	17103	9.02329E-05	0.001050657	-0.433617694	651.1276733	469.0042938	chr5	38561898	38564364	promoter
ENSMUSG000000070691	Runx3	5523	1.73356E-09	7.41295E-08	-0.433405578	1988.043954	1457.679496	chr4	135120574	135125445	promoter
ENSMUSG000000086092	Gm15323	18322	0.000909707	0.00709658	-0.433130417	443.1534699	314.5525108	chr13	112000327	112003126	intergenic
ENSMUSG000000046079	Lrc8d	9686	3.51108E-07	8.58381E-06	-0.432918819	1264.03592	922.2404035	chr5	105713736	105720932	intron
ENSMUSG000000095776	Gm23018	17022	6.86286E-06	0.000112834	-0.432854508	966.00013641	702.1796717	chr12	69511174	69514577	intergenic
ENSMUSG000000050439	Enthd1	19410	1.89247E-05	0.000275324	-0.432284917	823.4805060	597.2838581	chr15	80580576	80586106	intergenic
ENSMUSG000000012819	Cdh23	6652	4.72389E-07	1.11523E-05	-0.431746291	1237.028998	903.7778785	chr10	60388177	60391989	promoter
ENSMUSG000000022965	Ifngr2	11474	7.84642E-05	0.000933473	-0.431451069	713.3558239	515.5619323	chr16	91545570	91549096	promoter
ENSMUSG000000060675	Pla2g16	9122	0.000353743	0.003266198	-0.431289391	534.5116793	383.5072526	chr19	7556579	7558809	promoter
ENSMUSG000000049588	Ccdc69	9587	3.51475E-05	0.000465009	-0.43115743	772.9962984	559.768688	chr11	55076128	55079665	promoter
ENSMUSG000000021886	Gpr65	1440	1.45979E-06	2.97589E-05	-0.430299473	1164.852027	850.7411864	chr12	98270253	98273006	promoter
ENSMUSG000000024858	Adrbk1	15936	0.000750766	0.006064274	-0.430082667	531.8675944	379.0793507	chr19	4290314	4293363	promoter
ENSMUSG000000027540	Ptpn1	5641	1.08285E-13	1.02135E-11	-0.430073423	3550.025302	2618.579421	chr2	167942475	167955308	promoter
ENSMUSG000000069769	Msi2	10953	0.000240212	0.0023847	-0.430033115	551.1787626	396.4093665	chr11	88575836	88578807	intron
ENSMUSG000000038893	Fam117a	16574	0.001215082	0.008977851	-0.429206386	557.5808916	397.247483	chr11	95353928	95358153	intron
ENSMUSG000000085654	Gm12536	9713	0.000573833	0.004871652	-0.429195954	645.6453243	333.7032867	chr4	57307209	57309249	intron
ENSMUSG000000024646	Cyb5a	7765	0.000639251	0.00531711	-0.428236399	495.7201216	354.7865546	chr18	84851384	84852962	promoter
ENSMUSG000000032249	Anp32a	9398	1.52393E-10	8.10617E-09	-0.427630047	2444.660128	1800.963637	chr9	62360670	62327533	promoter
ENSMUSG000000034165	Cnd3	16808	5.71044E-08	1.7507E-06	-0.427041472	1607.564697	1181.615202	chr17	47511332	47515548	intron
ENSMUSG00000002289	Angptl4	14600	4.30139E-05	0.000551892	-0.426954448	744.4265327	540.8619047	chr17	33777321	33782079	promoter
ENSMUSG000000035778	Ggt1a	15668	1.08703E-05	0.00016953	-0.426040605	884.094675	645.2166638	chr2	35447797	35452958	promoter
ENSMUSG000000020805	Pebp4	8607	4.38706E-06	7.66686E-05	-0.426019953	988.1296547	722.289893	chr14	70053827	70058645	intron
ENSMUSG000000027074	Slc43a3	3979	1.01016E-06	2.17356E-05	-0.4259718	1186.097262	868.871185	chr2	84936577	84939980	promoter
ENSMUSG000000024085	Man2a1	5070	0.000026779	0.000367579	-0.425896936	826.8593875	602.6453381	chr17	64600729	64603139	promoter
ENSMUSG000000071068	Trem2	3293	3.9209E-07	9.44899E-06	-0.425759288	1448.013246	1062.657563	chr17	48299773	48304251	promoter
ENSMUSG000000098595	Gm29757	8374	1.35857E-08	4.80815E-07	-0.425449321	1942.320285	1431.210216	chr15	62175220	62183155	promoter
ENSMUSG000000019820	Utrn	3771	3.36725E-07	8.26632E-06	-0.425256108	1340.293697	984.060636	chr10	12866578	12871208	intergenic
ENSMUSG000000057110	Cntr1	5822	2.51492E-07	6.40525E-06	-0.425255996	1439.688942	1058.097401	chr2	35108314	35113011	promoter
ENSMUSG000000059586	Nsmce2	16945	4.31199E-05	0.00055201	-0.424881973	767.268694	558.426316	chr15	59599126	59601562	intron
ENSMUSG000000079084	Ccdc82	5348	0.000649096	0.005392171	-0.424842534	470.720966	338.5984645	chr9	13246986	13247997	promoter
ENSMUSG000000032294	Pkm	4152	2.60222E-09	1.06648E-07	-0.424824876	1984.449922	1464.234817	chr9	59659766	59665281	intron
ENSMUSG000000054520	Sh3bp2	7785	5.60139E-10	2.69318E-08	-0.424539835	2260.626392	1668.269772	chr5	34538764	34547498	promoter
ENSMUSG000000029270	Fam69a	14097	0.000529802	0.004548772	-0.424233353	510.0962391	367.8113321	chr5	107959812	107963145	intron
ENSMUSG000000037470	Ugg1	3397	1.71084E-08	5.93765E-07	-0.423219399	1680.199532	1239.363257	chr1	36239309	36244270	promoter
ENSMUSG000000023909	Paqr4	10082	3.25261E-05	0.000437371	-0.422875818	788.8603834	575.8435311	chr17	23736316	23740373	promoter
ENSMUSG000000061589	Dot1l	16669	2.61339E-09	1.06884E-07	-0.422399421	2219.067484	1638.56643	chr10	80769274	80783499	promoter
ENSMUSG000000097495	Gm26651	9364	0.000406152	0.0004065879	-0.421990973	513.4068093	370.9853959	chr13	51963703	51966666	intergenic
ENSMUSG000000051586	Mical3	4673	0.000144995	0.001560202	-0.421241793	686.3697723	498.6844372	chr6	121108162	121110826	promoter
ENSMUSG000000022498	Txndc11	973	6.37123E-07	1.45366E-05	-0.420777776	1292.328853	951.7256199	chr16	11131419	11134621	promoter
ENSMUSG00000001630	Stk38l	11789	0.000305505	0.002906573	-0.420506044	582.9751889	423.2234399	chr6	146744384	146747683	intron
ENSMUSG00000003168	Eif2ak3	3015	5.01277E-06	8.57785E-05	-0.420221464	1052.841684	772.9917926	chr6	70844541	70847810	promoter
ENSMUSG000000066406	Akap13	3198	2.78628E-10	1.41198E-08	-0.42011167	2446.190254	1813.546825	chr7	75608234	75613315	promoter
ENSMUSG000000021108	Prkch	19409	2.31849E-05	0.000326928	-0.420015481	828.0757312	606.2991246	chr12	73726613	73731411	intron
ENSMUSG000000050628	Ubald2	6619	9.63378E-06	0.00015205	-0.420006326	940.9234255	690.6172604	chr11	116423196	116428010	intergenic
ENSMUSG000000027333	Snox	16079	0.000224843	0.002258826	-0.419142118	648.8353059	471.3306439	chr2	131523267	131527155	promoter
ENSMUSG000000088552	Mir1957a	16819	1.27668E-09	5.73284E-08	-0.418277611	2151.153897	1595.601246	chr4	119126190	119133618	promoter
ENSMUSG000000027002	Nckap1	5837	0.000206936	0.001334245	-0.418080292	619.7223105	450.9601597	chr2	80579978	80581983	promoter
ENSMUSG000000015437	Gzmb	9995	0.00066152	0.005463135	-0.417675561	485.4366837	351.1450345	chr14	56260072	56262258	promoter
ENSMUSG000000021451	Sema4d	17213	1.06536E-07	3.00101E-06	-0.417151187	1490.058974	1102.672147	chr13	51752246	51757454	promoter
ENSMUSG000000027863	Cd2	14941	1.40418E-07	0.000211464	-0.417043867	1165.994942	856.9053185	chr3	101292377	101300722	intergenic
ENSMUSG000000039361	Picalm	17186	8.28398E-05	0.000975535	-0.416651475	811.9912326	593.9884653	chr7	90146644	90150194	intron
ENSMUSG000000021108	Prkch	16716	7.20904E-15	8.21455E-13	-0.416440154	5506.036754	4105.137744	chr12	73583216	73593097	promoter
ENSMUSG0000000021182	Cdc88c	18822	2.76348E-05	0.000377558	-0.416141419	826.8646053	607.1481728	chr12	100976111	100981333	intron
ENSMUSG0000000078700	D030028A08R	2220	2.11207E-05	0.000302361	-0.416023277	1177.980123	864.4064684	chr11	96912146	96916467	promoter
ENSMUSG000000025508	Rplp2	9115	0.000443915	0.003947179	-0.414719779	538.2920053	391.6980036	chr7	141450185	141452583	promoter
ENSMUSG000000029814	Igf2bp3	16974	1.0938E-06	0.00023109	-0.414482501	1234.922925	913.1147398	chr6	49211118	49216078	promoter
ENSMUSG000000024644	Cndp2	2554	0.00033054	0.003086656	-0.414253133	581.2260512	423.86396	chr18	84684313	84685642	promoter
ENSMUSG000000024525	Impa2	8886	0.000163184	0.001716564	-0.414217461	640.1934123	468.2056456	chr12	6729229	67291886	promoter
ENSMUSG000000050592	Fam78a	15840	0.000833104	0.00582357	-0.414136896	471.3558646	341.9076388	chr2	32072686	32075734	intron
ENSMUSG000000076288	Mir301b	6311	0.000243073	0.002408729	-0.413947614	698.299954	509.3364684	chr16	17122753	17125124	promoter
ENSMUSG000000032280	Tle3	16516	0.000325501	0.003050599	-0.413867096	616.1571893	449.4364616	chr9	61382268	61387690	intron
ENSMUSG000000026821	Ralgds	11507	7.37094E-09	2.7							

ENSMUSG000000092216	Gm19345	11935	0.001056123	0.008036648	-0.408394069	457.7500189	333.2480967	chr7	19843662	19846435	intergenic
ENSMUSG000000032312	Csk	12614	4.0332E-06	7.13063E-05	-0.408275029	1337.830688	991.5767372	chr9	57629506	57635834	intron
ENSMUSG000000046574	Prr12	6248	9.08237E-07	1.97835E-05	-0.407931816	1302.44827	968.8580393	chr7	45050716	45054230	promoter
ENSMUSG00000009013	Dynll1	12994	0.000876683	0.006868862	-0.407858493	483.031496	352.3007417	chr5	115295842	115298397	promoter
ENSMUSG000000051146	Camk2n2	6587	0.000143305	0.001546233	-0.407656083	710.0779704	522.2644497	chr16	20620037	20623013	promoter
ENSMUSG00000044056	Efcab9	2231	6.4427E-12	4.35919E-10	-0.407577728	3411.940875	2555.298157	chr11	32531536	32542760	promoter
ENSMUSG0000002885	Adgre5	4419	7.65688E-06	0.000123721	-0.407197947	1039.949709	771.9207952	chr8	83739334	83743310	promoter
ENSMUSG00000075010	AW112010	16931	0.00089064	0.006961612	-0.407003752	510.4754563	372.977885	chr19	11049370	11050444	promoter
ENSMUSG00000021143	Pacs2	16347	0.000338495	0.003146037	-0.406355638	684.0958796	503.1000728	chr12	113047339	113052502	intron
ENSMUSG00000001127	Araf	10379	0.000650466	0.005398624	-0.406338107	518.845739	379.8534661	chrX	20817389	20820170	intron
ENSMUSG00000085941	Gm11201	15450	0.000360668	0.003313074	-0.406186871	609.2066127	446.8525178	chr11	79030774	79035112	intron
ENSMUSG00000103123	Gm37390	8823	4.8647E-07	1.14573E-05	-0.40595841	1399.561583	1043.225996	chr1	180364337	180371152	promoter
ENSMUSG00000041075	Fzd7	14653	0.00120735	0.008940832	-0.405541271	651.3191855	474.2063111	chr1	59482123	59486638	promoter
ENSMUSG00000074796	Slc4a11	4687	5.86765E-06	9.82745E-05	-0.405427092	1288.948616	956.9644363	chr2	130693309	130699146	promoter
ENSMUSG00000067199	Frat1	5144	0.000666569	0.005500239	-0.404594595	558.1397748	408.5250986	chr19	41829756	41832349	promoter
ENSMUSG0000027843	Ptpn22	16844	2.0819E-09	8.69504E-08	-0.404106032	2605.09609	1953.473331	chr3	103857198	103862742	promoter
ENSMUSG00000059555	Tor4a	2154	1.97671E-09	8.29081E-08	-0.403340367	2562.323236	1920.262064	chr2	25192954	25201428	promoter
ENSMUSG00000034135	Sik3	16040	0.000867056	0.006806962	-0.403031631	542.1235236	396.972884	chr9	46047446	46051519	intron
ENSMUSG00000021814	Anxa7	2529	8.94418E-05	0.0010421	-0.403286202	849.52569	628.5149016	chr14	20478253	20480338	promoter
ENSMUSG00000054065	Pkp3	15037	0.000278243	0.002690044	-0.403064193	670.720892	493.8885445	chr7	141077074	141081426	promoter
ENSMUSG00000042506	Usp22	4240	0.000164122	0.001725515	-0.402932909	744.4042508	550.3323613	chr11	61172457	61175029	promoter
ENSMUSG00000052087	Rgs14	7692	0.000001536	0.00003106	-0.402131055	1268.280784	946.8289269	chr13	55369749	55374948	promoter
ENSMUSG00000025231	Sufu	13417	0.000100372	0.001145038	-0.402102361	776.2111128	575.0067492	chr19	46479071	46484410	promoter
ENSMUSG00000030956	Fam53b	8747	2.85889E-09	1.16201E-07	-0.401765861	2186.435342	1641.110906	chr7	132761822	132770259	intron
ENSMUSG00000084997	Gm15471	17444	0.000409846	0.003697617	-0.401713564	643.9173282	474.1721813	chr3	103801526	103804081	promoter
ENSMUSG00000026395	Ptpc	19056	0.000121045	0.001336876	-0.40164162	252.0366725	536.7297301	chr1	138144777	138148892	intron
ENSMUSG00000089739	Gm20431	15886	0.000790128	0.0063111	-0.401313152	636.3723297	466.4966175	chr2	167620046	167624216	intron
ENSMUSG00000062221	Hspb7	7493	2.59039E-06	4.87725E-05	-0.400595449	1403.442883	1047.615764	chr4	141420152	141425713	promoter
ENSMUSG00000040270	Bach2	8552	5.54394E-08	1.71297E-06	-0.400273201	2023.070848	1517.632573	chr4	32324657	32332532	intron
ENSMUSG00000056493	Foxk1	9284	0.000285432	0.00274608	-0.400180628	631.0305709	466.4462174	chr5	142437522	142440557	intron
ENSMUSG00000005555	Itga5	2153	2.03912E-08	4.88307E-07	-0.400030038	2048.822081	1538.612371	chr15	103363846	103370378	promoter
ENSMUSG00000012812	Itgb7	18020	0.00018603	0.001916998	-0.399462149	743.9856876	551.6979313	chr15	102230127	102234056	promoter
ENSMUSG00000043004	Gng2	11706	0.000706862	0.005772314	-0.399424121	574.570782	423.6050317	chr14	19974367	19976954	promoter
ENSMUSG000000055805	Fmn1	1515	7.38327E-13	6.08981E-11	-0.398960882	4096.204574	3088.323701	chr11	103175311	103183428	promoter
ENSMUSG00000021767	Kat6b	5810	0.000195644	0.00202457	-0.398170194	766.6913361	568.3764953	chr14	21498138	21500437	promoter
ENSMUSG00000039844	Rapgef1	2163	7.6331E-09	2.84445E-07	-0.397884157	2542.842837	1912.376638	chr2	29619128	29625520	promoter
ENSMUSG00000047767	Atg16l2	10399	0.000782174	0.006267887	-0.39755139	550.2681619	405.9547559	chr7	101288213	101290660	promoter
ENSMUSG00000079084	Ccdc82	2579	3.72998E-10	1.85679E-08	-0.397459308	2748.351636	2072.15844	chr9	13296663	13302723	intergenic
ENSMUSG00000098580	Mir7023	9144	4.74304E-05	0.00059974	-0.39721125	939.037595	699.214136	chr4	14965316	149660474	promoter
ENSMUSG00000064491	Gm22061	14628	1.04338E-07	2.95095E-06	-0.396648334	1887.261724	1418.697956	chr11	98946868	98956171	promoter
ENSMUSG00000018654	Ikfz1	10462	0.000182557	0.001884155	-0.396418332	823.400458	611.0363548	chr11	11707429	11712867	intron
ENSMUSG00000045969	Ing1	2546	0.00023981	0.002382753	-0.396230317	699.568901	519.5469106	chr8	11553386	11555903	promoter
ENSMUSG00000032322	Pstip1	8958	2.14251E-05	0.00306053	-0.39602141	1039.377569	776.7657534	chr9	56104601	56109258	intron
ENSMUSG000000100441	Gm7266	2534	6.51537E-07	0.000014814	-0.395832201	1467.556684	1102.868409	chr1	144296555	144301632	intergenic
ENSMUSG00000030750	Nsmc1	4618	7.06787E-09	2.66403E-07	-0.394838099	2754.215753	2078.199909	chr7	125485235	125496078	promoted
ENSMUSG00000024197	Plin3	14472	6.70995E-05	0.000813999	-0.394544805	975.555269	728.9692123	chr17	56287676	56291151	promoter
ENSMUSG00000021265	Slc25a29	8480	0.000303359	0.002888945	-0.394466994	733.734976	542.391693	chr12	108832666	108835851	promoter
ENSMUSG00000025214	Ptpj	1815	8.25589E-09	3.07069E-07	-0.394303037	2115.560081	1596.142301	chr2	90574920	90582430	promoter
ENSMUSG00000028857	Tmem222	15725	1.62866E-05	0.000240312	-0.394057936	1127.553682	843.6189434	chr4	133264946	133272799	promoted
ENSMUSG00000028163	Nfkb1	6729	0.000300413	0.002863656	-0.394029447	651.4846087	484.2818233	chr3	135717772	135720000	intergenic
ENSMUSG00000068663	Clec16a	15072	0.000085145	0.000998492	-0.393982394	859.809119	641.2943519	chr16	10759145	10764581	intergenic
ENSMUSG00000029826	Zch3hav1	6804	8.13938E-07	1.79075E-05	-0.393062499	1575.999129	1185.194056	chr6	38341602	38347190	intron
ENSMUSG00000038517	Tbkb1p	16953	6.84794E-05	0.000829198	-0.392937706	843.4923426	630.0631235	chr11	97127286	97129105	intergenic
ENSMUSG00000021108	Prkch	7058	2.1146E-07	5.47768E-06	-0.392436993	2165.041793	1631.791649	chr12	73660080	73669126	intron
ENSMUSG00000085287	4833418N02R	3620	3.55122E-07	8.63195E-06	-0.39207794	1716.210501	1292.758343	chr17	87280119	87289305	promoter
ENSMUSG00000012111	Agrp3	2536	2.13901E-07	8.89584E-08	-0.391927073	3083.56753	2330.411661	chr10	78290436	78300183	promoter
ENSMUSG00000062125	Zbtb17	15759	0.001179492	0.008777393	-0.391912044	558.5019279	412.191151	chr4	141452859	141456920	intron
ENSMUSG00000097021	493343G15R	18486	0.000923765	0.007183503	-0.390170956	541.291615	401.4519211	chr9	75422311	75425069	intergenic
ENSMUSG00000034165	Cnd3	16860	4.2196E-11	2.54376E-09	-0.389739885	3262.447213	2474.435342	chr17	47591528	47598853	promoter
ENSMUSG000000097636	ENSMUSG000000097636	14431	1.69383E-05	0.00024484	-0.389413891	1306.144686	982.3665453	chr19	53436301	53441536	intron
ENSMUSG00000028247	Pla1a	15473	0.001146975	0.008586891	-0.389393712	529.4519711	392.7187809	chr16	38393765	38396178	intron
ENSMUSG00000052040	Klf13	14458	0.000145313	0.001562765	-0.389220015	909.2960494	679.4596391	chr7	63933079	63936415	promoter
ENSMUSG000000052056	Zfp217	1761	4.33024E-09	1.70724E-07	-0.38877274	2885.573834	2186.553247	chr2	170126608	170134651	promoter
ENSMUSG00000030750	Nsmc1	9505	6.71003E-05	0.000813999	-0.388734143	907.5928681	680.1492247	chr7	125470840	125474539	intron
ENSMUSG000000049672	Zbtb14	7106	0.000219151	0.0002210912	-0.388669978	736.3330867	550.115668	chr17	69382876	69385825	promoter
ENSMUSG000000105296	RP23-209N19.	14954	0.000635734	0.005296798	-0.388106047	646.356644	480.9496315	chr3	137997856	138002785	promoter
ENSMUSG000000071369	Map3k5	2129	6.32387E-08	1.91788E-06	-0.387712122	1981.88594	1501.540125	chr10	19933070	19941841	promoter
ENSMUSG000000056069	Fam105a	2259	0.000493859	0.004307721	-0.387568						

ENSMUSG000000090570	Gm17041	437	4.52048E-12	3.28827E-10	-0.384462727	3870.403354	2948.581191	chr9	107303446	107312866	promoter
ENSMUSG000000049502	Dtx3l	1213	1.74376E-07	4.64524E-06	-0.384007806	1895.237132	1438.993508	chr16	35935367	35940524	promoter
ENSMUSG00000021025	Nfkbia	9474	0.000466639	0.004104797	-0.383341811	675.1245504	505.5600183	chr12	55464021	55466333	intergenic
ENSMUSG00000078349	AW011738	7357	0.000461385	0.00407312	-0.383223507	640.3744889	479.5459277	chr4	156203276	156205798	promoter
ENSMUSG000000052406	Rexo4	10562	0.000910316	0.00709852	-0.383161206	595.9695486	445.1680224	chr2	26959556	26962469	promoter
ENSMUSG00000030539	Sema4b	10740	0.000113833	0.001266358	-0.382526056	866.5719905	651.9327821	chr7	80205710	80211313	intron
ENSMUSG00000014778	Fhod1	8172	5.86773E-05	0.000722039	-0.38194301	924.7363534	697.8744333	chr8	105344348	105347984	promoter
ENSMUSG00000017861	Mybl2	4430	0.000776995	0.006239067	-0.381130282	753.7415403	563.5915343	chr2	163054613	163057104	promoter
ENSMUSG00000032519	Slc25a38	15378	0.000510032	0.004409765	-0.380998157	692.5671322	518.9813233	chr9	120114665	120118813	promoter
ENSMUSG00000079470	Utp14b	4954	0.000783625	0.006274408	-0.380988535	662.6511385	496.469819	chr1	78657879	78659836	promoter
ENSMUSG00000037447	Arid5a	8145	4.1032E-06	7.23492E-05	-0.380436346	1381.683374	1048.909071	chr1	36296187	36303534	intergenic
ENSMUSG00000032849	Abcc4	7345	0.001147358	0.008586891	-0.380237609	585.5718888	437.1599321	chr14	118703383	118707006	promoter
ENSMUSG00000044162	Trip3	9695	0.000317745	0.002996988	-0.379755477	766.030684	576.8779093	chr6	65524705	65529066	intergenic
ENSMUSG00000088386	Gm24692	3644	7.40457E-08	2.19169E-06	-0.37890026	2220.993891	1694.147598	chr12	54309544	54317650	intergenic
ENSMUSG00000097604	Gm17322	7012	7.60883E-07	1.69292E-05	-0.378436538	1609.821526	1225.156905	chr9	57989595	57995452	intergenic
ENSMUSG00000052681	Rap1b	16057	0.000715258	0.005828804	-0.377799537	630.6906997	473.4089976	chr10	117827834	117833916	intron
ENSMUSG00000041377	Ninj2	7466	0.000285256	0.002745728	-0.377190503	723.8426107	546.0039249	chr6	120193533	120197037	promoter
ENSMUSG000000041765	Ubac2	8667	0.000659418	0.005454936	-0.377063097	843.5724452	634.5182364	chr14	121900760	121905913	intron
ENSMUSG000000097165	2210008F06Ri	4885	5.49777E-06	0.000093028	-0.3765315171	1990.055257	1512.440152	chr11	77485062	77493177	promoter
ENSMUSG00000028559	Osbp9	2756	1.14368E-05	0.000177095	-0.376522669	1319.948672	1004.343921	chr4	109114562	109119381	promoter
ENSMUSG00000033016	Nfats1	15427	1.96398E-05	0.00028405	-0.376412537	1382.502026	1048.896804	chr18	80688310	80695480	intron
ENSMUSG00000027985	Lef1	7023	5.81014E-09	2.24104E-07	-0.375742252	270.865463	1890.989388	chr3	131514883	131164152	intron
ENSMUSG00000021108	Prkch	4633	0.000156657	0.00165674	-0.375669962	841.2341033	636.1768645	chr12	73779487	73782022	intergenic
ENSMUSG000000040430	Pitpnc1	8421	0.000766104	0.00616417	-0.375446912	627.2948088	471.637303	chr11	107458534	107461955	intron
ENSMUSG00000002227	Mov10	3040	1.91823E-05	0.000278454	-0.375395904	1123.298383	853.7912159	chr3	104816192	104819920	promoter
ENSMUSG000000057329	Bcl2	7532	0.000747524	0.006053707	-0.375221709	706.7910925	532.8306164	chr1	106565123	106567536	intron
ENSMUSG00000055447	Cd47	775	1.1301E-10	6.15404E-09	-0.375209483	4974.79771	3815.66708	chr16	49852955	49860373	promoter
ENSMUSG00000042772	Smg7	14391	0.000761576	0.00132741	-0.373984394	743.2561635	560.9243953	chr1	152903381	152905448	promoter
ENSMUSG00000060519	Tar3a	4794	0.000246773	0.002438412	-0.373721659	797.2083802	603.4834546	chr1	156672478	156674863	promoter
ENSMUSG000000071715	Ncf4	7075	2.41913E-06	0.000046165	-0.373713633	1447.634029	1104.738235	chr15	78242191	78249099	promoter
ENSMUSG00000030528	Blm	15098	0.000654717	0.005427342	-0.373154531	636.1637534	480.0256504	chr7	80442565	80446572	intergenic
ENSMUSG00000028480	Glipr2	16913	6.55116E-10	3.11188E-08	-0.372794975	3316.156725	2544.871583	chr4	43955757	43969046	promoter
ENSMUSG00000024883	Rin1	16020	0.001058796	0.008049384	-0.372686033	800.9256677	602.594938	chr19	5045417	5050266	promoter
ENSMUSG000000021978	Ext3	14842	0.000131005	0.001431537	-0.372574212	953.7810924	723.3610704	chr14	65085582	65091257	intron
ENSMUSG00000062235	Gm5341	578	1.11128E-08	4.0122E-07	-0.372570139	2518.203167	1931.813544	chr7	90057659	90064045	intergenic
ENSMUSG00000084894	Gm13834	17170	7.48231E-06	0.000121298	-0.37180712	1283.907382	980.469516	chr6	31075584	31081411	intergenic
ENSMUSG00000029924	Sle37a3	4336	0.000583051	0.004928685	-0.37180285	819.2475432	619.7081633	chr6	39375396	39378088	promoter
ENSMUSG00000034135	Sik3	10317	0.000495583	0.004320842	-0.371484309	686.0588114	518.8941242	chr9	46143256	46147477	intron
ENSMUSG000000095776	Gm23018	5202	1.21239E-05	0.00018527	-0.37128252	1296.838703	989.2394553	chr12	69473012	69478223	intergenic
ENSMUSG00000037992	Rara	4756	6.87216E-08	2.0557E-06	-0.369897577	2797.705861	2146.154402	chr11	98959816	98969352	promoter
ENSMUSG00000026355	Mcm6	16791	8.13126E-05	0.000961556	-0.369392669	1048.094348	799.3017905	chr1	128357748	128359713	promoter
ENSMUSG000000100548	Gm29585	888	1.43351E-07	3.91938E-06	-0.368616315	2713.496368	2082.672872	chr10	128518847	128525943	promoter
ENSMUSG000000087168	Gm15983	3492	0.000446122	0.003965018	-0.368544376	772.0174414	585.8699778	chr16	5254582	5255955	promoter
ENSMUSG000000038271	Iffo1	3728	9.98316E-07	0.000201508	-0.368124144	1866.688237	1431.233414	chr6	125144057	125150082	promoter
ENSMUSG00000043895	S1pr2	6266	0.000578569	0.004905516	-0.367895748	720.3509637	546.8393721	chr9	20974422	20976951	promoter
ENSMUSG00000021182	Ccdc88c	7400	3.98915E-06	7.05908E-05	-0.36760431	1536.993768	1178.13181	chr12	100988098	100994164	intron
ENSMUSG00000029204	Rhoh	3065	5.59351E-08	1.7202E-06	-0.367570409	3345.267324	2573.959613	chr5	65862354	65869460	promoter
ENSMUSG00000021108	Prkch	1799	3.77448E-11	2.28942E-09	-0.367320999	5160.043558	3978.860011	chr12	73604003	73615306	intron
ENSMUSG000000050931	Sgms2	5237	0.001261335	0.009250263	-0.367067177	698.8431841	527.8480589	chr3	131488959	131490760	promoter
ENSMUSG000000106832	RP24-103L16..	5150	4.39063E-05	0.000559326	-0.367007327	1098.66252	840.015557	chr5	67425246	67429993	promoter
ENSMUSG00000038178	Slc43a2	3827	2.75272E-07	6.88633E-06	-0.366984959	3012.832588	2313.9906911	chr11	75530606	75539610	promoter
ENSMUSG00000009035	Tmem184b	4377	5.10965E-05	1.19913E-05	-0.366429713	1869.716757	1436.597563	chr15	79398565	79404876	promoter
ENSMUSG000000086443	4933421A08R	3525	1.72685E-11	1.11247E-09	-0.365971925	4243.388804	3275.80142	chr4	122948626	122963421	promoter
ENSMUSG00000048307	Ankrd46	6367	2.67679E-08	8.76538E-07	-0.365876829	2395.699363	1845.354388	chr15	36447481	36457509	intergenic
ENSMUSG000000037487	Ubr5	14549	0.001157399	0.008645622	-0.365874533	614.3464233	465.8928965	chr15	38079051	38081920	promoter
ENSMUSG00000040270	Bach2	1438	9.89835E-07	0.0002688E-07	-0.365809546	2799.857908	2157.166162	chr4	32276249	32285661	intron
ENSMUSG000000401205	Iffo2	9026	0.000354911	0.00327545	-0.365503593	870.5623034	662.4757507	chr4	139594447	139598930	intron
ENSMUSG00000027544	Nfats2	7426	1.73897E-06	3.45917E-05	-0.365427396	1664.26719	1278.577858	chr2	168484486	168491835	intron
ENSMUSG000000052336	Cx3cr1	17058	0.000106237	0.001195348	-0.363406629	1027.865975	786.41943	chr9	11998708	120003594	intron
ENSMUSG000000098496	1810026B05R	4352	0.000393829	0.003574383	-0.362843331	805.0814037	614.8237367	chr7	73558825	73560640	promoter
ENSMUSG000000044471	Lincpint	4401	2.1563E-07	5.55856E-06	-0.362498257	2137.168334	1649.058999	chr6	31154158	31136209	intron
ENSMUSG00000028849	Map7d1	541	4.58852E-10	2.2445E-08	-0.362377547	3686.832744	2850.819887	chr4	126250636	126262120	promoter
ENSMUSG000000032741	Tpcn1	7978	0.0010588	0.008346175	-0.361441791	1386.555379	1067.233997	chr11	120586148	120588595	promoter
ENSMUSG000000085704	4912513C22R	2169	0.000470508	0.00417327	-0.361304939	733.9790913	560.4814716	chr2	179976003	179978811	promoter
ENSMUSG000000019843	Fyn	15979	3.15387E-06	5.76202E-05	-0.361258416	1590.127333	1226.104084	chr10	39484189	39494424	intron
ENSMUSG000000032300	1700017B05R	6973	0.000199686	0.002039588	-0.361031144	927.922574	710.0010972	chr9	57260049	57263652	promoter
ENSMUSG000000026821	Ralgds	9024	0.000245098	0.002467278	-0.3608234	903.9936367	691.7103012	chr2	28512099	28516943	promoter
ENSMUSG000000018932	Map2k3	2717	0.00011464	0.000							

ENSMUSG000000087433	Gm14167	773	3.22732E-12	3.38278E-10	-0.358178304	4832.22811	3754.018577	chr2	151536586	151550489	promoter
ENSMUSG000000030199	Etv6	1517	5.28521E-12	3.72097E-10	-0.35791202	4701.876386	3653.527467	chr6	134033643	134045729	promoter
ENSMUSG00000005986	Ankrd13d	12901	0.001246294	0.009153538	-0.357880251	651.6538389	496.6810164	chr19	4283308	4286955	promoter
ENSMUSG000000021108	Prkch	6845	0.000909541	0.00709658	-0.357731988	691.6171855	528.808839	chr12	73564625	73567038	intergenic
ENSMUSG000000046711	Hmgal	272	8.65724E-11	4.82091E-09	-0.357361273	5292.918507	4110.166698	chr17	27553827	27562173	promoter
ENSMUSG000000083533	Gm13450	15828	0.000189093	0.001946523	-0.357253611	952.0096727	730.7899724	chr2	34967850	34975044	intergenic
ENSMUSG000000099041	Gm28035	7295	1.70125E-08	5.91477E-07	-0.357160224	2661.80919	2064.114886	chr2	30247830	30260320	intron
ENSMUSG000000096938	9530052E02R	3432	6.60858E-09	2.51496E-07	-0.357103776	2818.598347	2187.545488	chr8	10999717	11008900	promoter
ENSMUSG000000021298	Gpr132	9533	0.000522603	0.004502658	-0.356850506	853.4700285	653.3364859	chr12	112864228	112867656	intergenic
ENSMUSG000000037692	Ahdcl	13150	0.001056819	0.008037452	-0.356146687	667.7895388	510.3095149	chr4	133077731	133081831	intron
ENSMUSG000000097048	1600020E01R	8731	0.000250016	0.002465511	-0.355821187	960.0179983	737.2580942	chr6	86581577	86587195	intron
ENSMUSG000000026547	Tagln2	2661	2.65144E-07	6.65832E-06	-0.353753371	2096.265977	1627.617337	chr1	172498914	172503931	promoter
ENSMUSG000000029406	Pitpnm2	9634	4.28716E-05	0.000550931	-0.353639273	1427.858323	1102.206026	chr5	124184068	124191403	promoter
ENSMUSG000000084368	Gm11572	1298	8.86645E-12	5.92489E-10	-0.35356291	4778.535662	3724.510162	chr11	97108204	97119481	promoter
ENSMUSG000000036002	Fam214b	2566	2.13153E-05	0.000304706	-0.353057518	135.299417	1025.782913	chr4	43033739	43040249	promoter
ENSMUSG000000026107	Nabp1	3485	0.001173844	0.008745271	-0.353013422	715.1954994	548.869995	chr1	51478629	51481016	promoter
ENSMUSG000000047045	Tmem164	14658	0.0003030505	0.003086656	-0.352751863	830.5662393	639.7557182	chrX	142679087	142684660	promoter
ENSMUSG00000002668	Dennd1c	1148	7.04475E-06	0.000115439	-0.352955859	1638.487047	1269.438593	chr17	57074809	57080972	promoter
ENSMUSG000000058755	Osm	2224	1.83782E-08	6.3007E-07	-0.35232648	2688.856698	2093.091843	chr11	4233879	4241182	promoter
ENSMUSG000000038366	Lasp1	1609	7.05264E-07	1.58708E-05	-0.352281286	2037.145039	1582.008212	chr11	97798475	97803539	promoter
ENSMUSG000000099329	Gm28052	2051	0.00013173	0.001437874	-0.352092058	1066.509158	822.7455384	chr17	29548878	29552797	promoter
ENSMUSG000000020733	Slc9a3r1	2294	1.95402E-07	0.05918E-06	-0.351930264	284.804345	1776.216985	chr11	115163343	115169812	promoter
ENSMUSG000000020857	Nrm2	3366	0.000337981	0.003142743	-0.351846813	833.6051949	642.3015282	chr11	93956082	93959952	promoter
ENSMUSG000000057666	Gapdh	5055	0.000125002	0.001373783	-0.351784625	983.4098177	759.7314649	chr6	125165806	125168089	promoter
ENSMUSG000000022051	Bnip3l	5850	0.000971033	0.007494899	-0.351537591	702.1551653	539.4240711	chr14	67005848	67008822	promoter
ENSMUSG000000087484	2900089D17R	4893	0.000150134	0.001601512	-0.351314974	1316.510614	1015.708736	chr5	144255229	144259979	promoter
ENSMUSG000000021895	Arhgef3	6281	0.00009431	0.001086576	-0.351254789	1178.1337	910.2105359	chr14	27234629	27239675	promoter
ENSMUSG000000097048	1600020E01R	9090	0.000260234	0.002549696	-0.350605653	925.6535825	714.7015284	chr6	86567975	86571865	intron
ENSMUSG000000018678	Sp2	15395	0.000551025	0.004708483	-0.350276914	964.4148282	742.0307889	chr11	96966884	96972850	promoter
ENSMUSG000000089429	Gm26004	3413	3.67717E-05	0.000481968	-0.350234888	1351.716188	1048.650142	chr1	181839368	181843675	promoter
ENSMUSG000000069050	Trmt61a	14121	4.45877E-05	0.000565974	-0.350186641	1740.783325	1347.200074	chr12	111685184	111696435	intergenic
ENSMUSG000000030068	Gm20696	9549	0.00023253	0.00232212	-0.349674462	1069.725383	827.1870413	chr6	99400735	99406151	intron
ENSMUSG000000027087	Itgav	504	7.49153E-08	2.20748E-06	-0.34902799	2661.844558	2076.759406	chr2	83722117	83727674	promoter
ENSMUSG000000040270	Bach2	1246	5.12097E-10	2.47426E-08	-0.34875962	3823.922661	2988.680305	chr4	32356873	32367571	intron
ENSMUSG000000108210	RP23-42H18.5	7604	0.000297457	0.002843725	-0.347398815	1018.504968	788.1551009	chr2	38532355	38536412	promoter
ENSMUSG000000042677	Zch312a	1696	5.16316E-07	1.020881E-05	-0.347243022	2056.241002	1603.632535	chr4	125118677	125124859	promoter
ENSMUSG000000097636	5830416P10R	10068	0.000856239	0.006732766	-0.347132209	742.7627155	573.0387928	chr19	53417464	53421174	intergenic
ENSMUSG000000062115	Rai1	7061	8.24907E-06	0.000132099	-0.347117606	1532.437943	1192.697891	chr11	60172605	60178990	promoter
ENSMUSG000000039477	Trhr18	11272	0.00066761	0.005504221	-0.347001586	771.1736865	595.1428379	chr5	142813507	142817614	promoter
ENSMUSG000000016942	Tmrprss6	4476	0.000567916	0.002483491	-0.34664623	891.1401222	688.059184	chr15	78447877	7850121	intron
ENSMUSG000000041961	Znrf3	14753	0.001225253	0.009032688	-0.346458644	687.2528732	529.3376272	chr11	5340158	5344793	intron
ENSMUSG000000065954	Tacc1	5181	9.14172E-05	0.001061312	-0.346244686	1083.919022	841.6755197	chr8	25272459	25277244	intergenic
ENSMUSG000000085274	BC046401	15127	0.000393151	0.003571014	-0.346183108	839.8930931	650.0560962	chr2	165855106	165860634	promoter
ENSMUSG000000033486	Catsper2	161	1.04706E-06	2.23627E-05	-0.346057507	2016.091361	1572.649488	chr2	121411463	121418566	promoter
ENSMUSG000000053158	Fes	15680	0.000238882	0.002374728	-0.345651099	1032.483403	799.6207159	chr7	80386570	80394339	promoter
ENSMUSG000000032313	AA467197	7037	0.000291376	0.002789653	-0.345642986	902.8114212	699.9405206	chr2	122635810	122639627	promoter
ENSMUSG000000019173	Rad5c	15455	0.000500926	0.004407265	-0.344964668	1023.937265	791.7011595	chr11	100727232	100734558	promoter
ENSMUSG000000087452	Gm11998	7212	6.695896E-06	0.000110549	-0.344463013	1619.669327	1263.177665	chr11	11554386	11561134	promoter
ENSMUSG000000032120	Czd2l	4112	3.32914E-06	6.02085E-05	-0.3440035972	1690.737511	1230.298801	chr9	44314460	44320268	promoter
ENSMUSG000000059248	42622	14369	1.80343E-05	0.000263341	-0.343379779	1547.050146	1205.845332	chr11	117244541	117250316	intron
ENSMUSG0000000303220	Arhgdib	2596	1.61096E-06	3.23048E-05	-0.343057573	2358.535089	1845.884511	chr6	136937591	136943107	promoter
ENSMUSG000000039936	Pik3cd	481	4.93147E-12	3.53506E-10	-0.342338754	5700.810418	4479.694626	chr4	149696496	149706961	promoter
ENSMUSG000000097567	Gm26637	7066	0.000379539	0.003454229	-0.342010879	978.9393137	761.1570321	chr17	78879777	78884523	promoter
ENSMUSG000000047604	Frat2	8333	0.001030543	0.007917657	-0.341899127	721.5108973	558.8324406	chr19	41845880	41848908	promoter
ENSMUSG000000075025	Gm10804	8095	0.000125321	0.001375799	-0.341254107	1058.439405	824.7870292	chr2	93465724	93471368	promoter
ENSMUSG000000040565	Btaf1	1099	6.45437E-08	1.95146E-06	-0.34112776	2602.898068	2041.813244	chr19	36924851	36928921	promoter
ENSMUSG000000034165	Cnd3	8186	1.10194E-05	0.000171448	-0.340583361	1692.006458	1324.383245	chr17	47525972	47533032	intron
ENSMUSG000000086037	Gm16085	8787	8.21753E-05	0.000969433	-0.339901398	1182.537358	922.7078599	chr12	107127990	107132607	promoter
ENSMUSG000000019851	Perp	1612	7.38529E-05	0.0008805022	-0.339696146	1178.083919	920.2356481	chr10	18843951	18847434	promoter
ENSMUSG000000035354	Uvrag	17911	0.000575423	0.004880945	-0.339176778	823.5369707	640.6415655	chr7	99085330	99090193	intron
ENSMUSG000000023892	Zfp51	9165	0.000218715	0.0002207641	-0.339036375	1045.728506	816.0416863	chr17	21449894	21452714	promoter
ENSMUSG000000018340	Anxa6	7753	0.001232505	0.00907258	-0.3389961	707.2200913	548.451604	chr11	55020061	55023029	intron
ENSMUSG0000000097120	Gm26887	6917	7.86871E-06	0.000126832	-0.338974246	1657.1080379	1298.012095	chr8	84186054	84194515	intron
ENSMUSG0000000070708	Kat2b	2088	8.47979E-06	0.000135354	-0.338338425	1738.685291	1362.022413	chr17	53565847	53571086	promoter
ENSMUSG0000000097194	9330175E14R	2688	6.37223E-06	0.000105826	-0.337975285	2077.1609886	1630.308868	chr8	94431434	94437050	promoter
ENSMUSG000000026661	Ncs1	8381	9.64343E-06	0.000152081	-0.337816243	1604.484985	1257.778051	chr2	31294786	31303211	intron
ENSMUSG0000000092686	Gm25745	1112	4.76601E-06	8.24143E-05	-0.337580921	1727.026724	1354.690307	chr10	86702315	867	

ENSMUSG000000017132	Cyth1	2329	2.93208E-09	1.18686E-07	-0.334784629	4023.304753	3174.85779	chr11	118237793	118248635	promoter
ENSMUSG000000074649	BC029722	15372	0.000747872	0.006053707	-0.334629704	874.2127451	681.5897275	chr2	155819360	155824538	promoter
ENSMUSG000000048897	Zfp710	1631	1.16523E-05	0.000179594	-0.334112226	1608.328349	1264.714964	chr7	80024819	80030335	promoter
ENSMUSG00000037239	Spred3	209	0.000045036	0.000570929	-0.333540424	1346.185314	1056.828627	chr7	29167390	29174528	promoter
ENSMUSG000000106022	RP24-277J22.1	2890	8.04548E-05	0.000953129	-0.332311989	1242.614872	976.1165468	chr3	121424355	121429897	promoter
ENSMUSG00000001420	Tmem79	3826	2.85627E-05	0.000388314	-0.331910632	1472.185982	1158.525844	chr3	88332115	88337413	promoter
ENSMUSG000000042608	Stk40	14583	0.001206567	0.008938391	-0.331805268	875.5603838	683.7920794	chr4	126110289	126114142	intron
ENSMUSG000000090494	Traj36	545	1.18303E-15	1.51435E-13	-0.331186196	27357.35069	21693.93009	chr14	54179274	54233380	promoter
ENSMUSG000000050912	Trem123	4585	0.000217369	0.002195184	-0.331132682	1188.900142	934.0236093	chr9	7764102	7768465	promoter
ENSMUSG00000032845	Alpk2	7732	0.000348439	0.003228463	-0.330561766	1412.755494	1108.923479	chr18	65392805	65398068	promoter
ENSMUSG00000038418	Egr1	14046	5.60848E-07	1.29613E-05	-0.330507233	2446.37291	1932.072472	chr18	34849212	34858805	promoter
ENSMUSG000000098907	Mir7082	2515	6.77922E-07	1.53608E-05	-0.330200476	2283.842552	1804.002771	chr9	21070986	21077852	promoter
ENSMUSG000000032578	Cish	3561	0.000291166	0.002788997	-0.330138887	1014.289015	796.5951831	chr9	107313174	107316298	intergenic
ENSMUSG000000045817	Zfp3612	7949	1.44189E-05	0.00215969	-0.329618213	1656.898051	1306.080183	chr17	84178585	84183989	intron
ENSMUSG00000066621	Tecpr1	16901	9.30306E-05	0.001075068	-0.328904936	1245.477968	980.1751233	chr5	144218734	144223550	promoter
ENSMUSG00000036461	Elf1	5899	2.04813E-06	4.00942E-05	-0.328392162	2639.30814	2087.622635	chr14	79515248	79524934	promoter
ENSMUSG000000055865	Fam19a3	5424	4.98815E-06	8.55055E-05	-0.328278951	2567.88161	2028.398612	chr3	104780207	104793224	promoter
ENSMUSG000000094439	Gm21969	7479	0.000328792	0.00307429	-0.328115784	988.8316791	777.3694744	chr4	139599114	139603720	promoter
ENSMUSG00000037679	Inf2	2079	2.2238E-06	0.000043105	-0.328010437	2712.845536	2143.709392	chr12	112585679	112595933	promoter
ENSMUSG00000022867	Usp25	6505	0.000966935	0.007467478	-0.327835496	881.9388203	691.762036	chr16	77013694	77017228	promoter
ENSMUSG00000007573	Serpinf1	10544	0.000332144	0.003095772	-0.327729167	992.4257107	780.5558045	chr11	75412833	75418612	promoter
ENSMUSG000000057969	Sema3b	7749	4.52598E-08	1.42525E-06	-0.327591945	3391.140374	2686.770989	chr9	107599096	107612784	promoter
ENSMUSG000000081453	Gm6767	8662	0.000399546	0.003611495	-0.327346528	1047.318498	824.0497766	chr16	51673754	51678509	intergenic
ENSMUSG000000025823	Pdia4	3894	0.000112076	0.001250339	-0.327125688	1526.105481	1203.167261	chr6	47809144	47813385	promoter
ENSMUSG00000037936	Scarb1	6761	0.000399022	0.003609876	-0.326592529	1059.729222	833.1277096	chr5	125336773	125341335	promoter
ENSMUSG000000038608	Dock10	1382	2.27824E-06	4.39012E-05	-0.326588584	2231.905871	1768.10943	chr1	80754436	80759843	promoter
ENSMUSG000000103137	Gm37981	3323	0.000346068	0.003213394	-0.326292833	1067.61931	840.3726161	chr1	171679527	171682491	promoter
ENSMUSG00000020859	Arhgef2	17818	0.000147207	0.001754543	-0.326242464	1255.059373	988.773335	chr3	88625337	88632650	promoter
ENSMUSG00000064722	Gm25857	7374	0.000880893	0.006893628	-0.326025252	906.9984641	711.6746609	chr2	119740239	119745535	promoter
ENSMUSG000000047888	Trnc6b	4526	0.000369129	0.003375067	-0.325747925	1206.767915	951.4285579	chr15	80798646	80802666	intron
ENSMUSG00000097759	Gm26753	3576	0.000346484	0.003219123	-0.325153782	1016.354331	800.8132223	chr17	21488539	21491478	promoter
ENSMUSG00000035778	Ggt1	10242	0.000811697	0.006449406	-0.324782734	932.8416457	734.3797578	chr2	35443348	35447494	promoter
ENSMUSG00000062031	Athl1	3857	8.14861E-06	0.000130703	-0.324736534	2037.665986	1613.667244	chr7	140940320	140947664	promoter
ENSMUSG00000002107	Cef2	1395	3.18594E-06	5.80268E-05	-0.324583944	2438.935345	1934.923607	chr2	6715391	6723274	promoter
ENSMUSG000000103768	Gm37856	6339	5.61417E-05	0.000693869	-0.323986082	1376.164346	1088.255932	chr1	165844777	165851009	promoter
ENSMUSG00000040877	Wdr25	4473	6.46942E-06	0.000107076	-0.323610061	1827.242032	1448.897291	chr12	108889772	108896180	promoter
ENSMUSG00000036698	Ago2	1322	4.02127E-05	0.000522209	-0.323220504	1451.245125	1149.116719	chr15	73135580	73142895	intron
ENSMUSG000000106086	RP24-176P19.	4230	9.33894E-09	3.44745E-07	-0.323090294	4213.696054	3354.227953	chr3	131109006	131120807	promoter
ENSMUSG000000045031	Cetn4	1211	6.81507E-07	1.54243E-05	-0.323089096	2910.110133	2313.264306	chr3	37286475	37292761	intergenic
ENSMUSG000000042622	Maff	1290	2.68232E-06	5.03108E-05	-0.322879796	2182.144504	1731.469175	chr15	79346366	79355074	promoter
ENSMUSG000000099238	Mir7001	6020	2.24845E-06	4.34973E-05	-0.322813753	2348.599146	1863.597453	chr2	93418117	93423537	promoter
ENSMUSG000000040414	Slc25a28	4715	0.000678521	0.005577847	-0.322692049	913.4570033	720.1624739	chr19	43672434	43674887	promoter
ENSMUSG000000030560	Ctsc	3230	0.000331804	0.003094068	-0.322550759	1045.97121	826.0899965	chr7	88276654	88280220	promoter
ENSMUSG000000040430	Pitpnc1	16912	0.000527375	0.004533862	-0.321904986	950.1766251	750.1615428	chr11	107451279	107456195	intron
ENSMUSG00000047867	Gimap6	4316	1.13367E-06	2.38683E-05	-0.321884949	2558.822564	2034.889932	chr6	48701802	48708931	promoter
ENSMUSG00000020571	Pdia6	1888	0.000147542	0.001577276	-0.321535967	1208.990615	956.7055081	chr12	17266562	17269802	promoter
ENSMUSG00000087120	Gm12279	696	0.000503113	0.004556487	-0.320893294	1068.264924	844.2226644	chr11	62548685	62551049	promoter
ENSMUSG00000038366	Lasp1	11340	0.000103037	0.001175723	-0.320716526	1561.493118	1236.152394	chr11	97812320	97821816	promoter
ENSMUSG00000024014	Pim1	2132	0.000793607	0.00633191	-0.319976801	1040.66358	822.9050011	chr17	29488357	29490392	promoter
ENSMUSG00000034165	Cnd3	2672	1.31487E-06	2.70592E-05	-0.319275417	2300.934827	1832.09655	chr17	47515759	47525469	intron
ENSMUSG00000021108	Prkch	7942	5.29366E-05	0.000659216	-0.315805868	1423.524333	1130.876323	chr12	73628670	73634784	intron
ENSMUSG00000035778	Ggt1a	2057	6.84359E-06	0.000112611	-0.318100311	2047.079571	1630.975396	chr2	35459398	35465616	promoter
ENSMUSG00000056692	D17Wsu92e	3429	0.000140446	0.001520527	-0.318058258	1363.747344	1082.497925	chr17	27820827	27826039	promoter
ENSMUSG00000069769	Msi2	3966	5.14354E-05	0.000642488	-0.317708724	1523.710729	1211.037752	chr11	88548445	88553009	intron
ENSMUSG000000027544	Nfatc2	7640	0.000159238	0.001681334	-0.317667041	1374.21185	1090.82494	chr2	168575230	168579601	intron
ENSMUSG00000005013	Wdr1	1113	2.80322E-06	5.21713E-05	-0.3167113	2246.907726	1791.479579	chr5	38554219	38561735	promoter
ENSMUSG00000033545	Znrfl1	1561	4.20541E-06	0.000073887	-0.316614991	2035.48875	1623.313433	chr8	111536191	111542251	promoter
ENSMUSG00000073412	Lst1	17056	1.99199E-05	0.000287048	-0.315769696	1855.647785	1478.911295	chr17	35183546	35191110	promoter
ENSMUSG000000024056	Ndc80	2341	0.000606323	0.00509699	-0.315379691	1434.261863	1138.419627	chr17	71484280	71488420	intergenic
ENSMUSG00000022362	Gm29394	3615	0.001320013	0.009609089	-0.315378858	817.9733788	647.517446	chr15	58074226	58076509	promoter
ENSMUSG000000085636	Gm11769	1985	0.000337366	0.003138511	-0.315083225	1186.114326	941.8613051	chr11	120148126	120151284	promoter
ENSMUSG00000039844	Rapgef1	14158	0.000310358	0.0029428	-0.3150305	1178.010444	936.557153	chr2	29660522	29669085	intron
ENSMUSG00000006360	Crip1	4307	3.24257E-07	7.98012E-06	-0.314953928	3111.351361	2486.267148	chr12	113145619	113156007	promoter
ENSMUSG000000097812	Gm26812	2898	0.00019147	0.001967904	-0.31467274	1268.060361	1008.955818	chr8	121847136	121850975	promoter
ENSMUSG000000047434	Xytl1	9935	0.000873398	0.006845848	-0.314156864	1027.175772	815.3017007	chr16	31065790	31070985	promoter
ENSMUSG000000096411	Gm24721	10455	0.001366277	0.009899617	-0.313311358	869.9508174	689.2516904	chr4	124736221	124740020	promoter
ENSMUSG000000034088	Hdلب	964	2.39803E-05	0.000335741	-0.312648313	1752.398739	1399.449049	chr1	93442011	93447601	promoter
ENSMUSG00000020401	Fam71b	3151	1.77307E-05	0.000259099	-0.312						

ENSMUSG00000105986	RP24-180F7.2	3342	2.16201E-05	0.000308169	-0.310537675	1743.394692	1394.899818	chr3	103862912	103869250	promoter
ENSMUSG00000024349	Tmem173	2474	6.9438E-09	2.62732E-07	-0.310364386	4639.846377	3726.618387	chr18	35732680	35749928	promoter
ENSMUSG00000027863	Cd2	1296	7.50519E-10	3.52261E-08	-0.310169017	5319.205355	4275.720109	chr3	101279836	101289999	promoter
ENSMUSG00000084772	Gm15473	897	2.01601E-05	0.000289662	-0.309939473	2081.445198	1667.653784	chr6	17062538	17070022	promoter
ENSMUSG00000096959	4930509G22R	572	6.51374E-05	0.000793782	-0.309438443	1598.909546	1278.257598	chr16	11172772	11178663	promoter
ENSMUSG00000032727	Mier3	1565	0.000548179	0.004690212	-0.30903657	1133.84158	903.5325513	chr13	111684696	111688093	promoter
ENSMUSG00000020827	Min1k	4925	1.68075E-05	0.000247074	-0.308571556	1820.252109	1458.749339	chr11	70576283	70584976	intron
ENSMUSG00000045817	Zfp361l2	11111	4.46311E-06	7.77907E-05	-0.308457041	2272.189203	1822.525293	chr17	84111861	84121150	intergenic
ENSMUSG00000097675	170010111Ril	1646	0.000376438	0.003433925	-0.308066645	1193.698671	953.5709127	chr6	129532646	129536337	promoter
ENSMUSG00000099810	Gm29509	3903	2.97642E-07	7.40837E-06	-0.30801988	3072.743693	2470.189636	chr6	117897986	117906550	promoter
ENSMUSG0000027544	Nfatc2	2382	2.45149E-09	1.01106E-06	-0.30798493	4923.166346	3961.648655	chr2	168579840	168593386	promoter
ENSMUSG00000050592	Fam78a	4527	2.66658E-08	8.74647E-07	-0.307917765	3888.92337	3129.0116	chr2	32076617	32085402	promoter
ENSMUSG00000036587	Fut7	5322	1.35902E-05	0.000205291	-0.307759309	2094.125775	1678.713275	chr2	25421199	25428466	promoter
ENSMUSG00000092569	Gm20544	1882	1.14315E-12	9.01393E-11	-0.307742904	981.859759	7940.169467	chr18	75366226	75393543	promoter
ENSMUSG00000085853	Gm12167	8237	0.000110165	0.001231114	-0.307344462	1517.735203	1216.250701	chr11	46343684	46350805	promoter
ENSMUSG00000034928	Rnf44	14289	4.95529E-05	0.00062338	-0.307172721	1784.222665	1429.915575	chr13	54683249	54688178	promoter
ENSMUSG00000021185	9030617003R	7042	4.0453E-06	7.14562E-05	-0.306659734	2328.932453	1870.485301	chr12	100883474	100890171	promoter
ENSMUSG00000012123	Aim1l	1474	6.07747E-05	0.000745985	-0.306403187	2096.638565	1680.554564	chr4	134089854	134095065	promoter
ENSMUSG00000028931	Kcnab2	1546	6.80216E-07	1.39741E-05	-0.305431381	3036.799569	2445.162193	chr4	152442805	152451833	promoter
ENSMUSG00000049422	Chchd10	7487	0.000839942	0.006628411	-0.304393117	986.301825	789.030165	chr10	75934771	75938689	promoter
ENSMUSG00000048251	Bcl11b	2239	6.99017E-15	8.03427E-13	-0.30437523	15836.21155	12796.47993	chr12	107970282	108008154	promoter
ENSMUSG00000024014	Pim1	6464	1.87226E-05	0.000272785	-0.304004276	1875.314478	1508.010916	chr17	29496047	29503795	intron
ENSMUSG00000025024	Smmnd1	8740	0.001268711	0.009287075	-0.303648217	941.0924758	752.2644292	chr19	53408676	53412168	intergenic
ENSMUSG00000074825	Itprip1	3870	0.000191823	0.001970509	-0.303293183	1375.281245	1103.410798	chr2	127140098	127144392	promoter
ENSMUSG00000038366	Lasp1	8869	0.000169521	0.001776588	-0.303287885	1397.704843	1121.775192	chr11	97824040	97831457	promoter
ENSMUSG00000024613	Tcof1	2089	0.00060544	0.0007968	-0.303060134	1773.75816	1425.442611	chr18	60843996	60848957	promoter
ENSMUSG0000001576	Ergic1	6843	0.000522054	0.00450186	-0.303002097	1176.589332	942.869816	chr17	26663206	26668169	intergenic
ENSMUSG000000097039	Pvt1	6403	0.000983338	0.007573612	-0.302993133	1048.2752424	840.0387551	chr15	62453471	62458076	intergenic
ENSMUSG00000029512	Ulk1	3117	0.000975059	0.007517142	-0.302189625	1065.434545	853.6045872	chr5	110806643	110810078	promoter
ENSMUSG00000032280	Tie3	2227	8.01651E-06	0.000128793	-0.302128087	2310.447976	1861.051643	chr9	61372419	61377935	promoter
ENSMUSG00000012288	Uhrf1	4665	2.43826E-06	0.0004644	-0.302036839	682.685987	2079.121221	chr17	56303381	56309885	promoter
ENSMUSG00000028706	Nsn4	5028	0.000369634	0.003594286	-0.301252224	1229.490628	988.1818789	chr4	116050611	116055060	promoter
ENSMUSG00000047423	A1837181	552	0.00011922	0.001319584	-0.300256575	1455.438796	1171.72502	chr19	5425124	5428711	promoter
ENSMUSG00000054065	Pkp3	17374	0.000426398	0.003820724	-0.300188956	1409.407974	1131.553643	chr7	141087066	141092422	promoter
ENSMUSG00000029192	Tbc1d14	17038	0.001202915	0.008920319	-0.300060337	954.7717957	765.5126705	chr5	36579029	36581900	promoter
ENSMUSG00000018476	Kdm6b	9057	4.38388E-05	0.000559326	-0.299699306	2121.597235	1709.609123	chr11	69411975	69423356	promoter
ENSMUSG00000030748	Il4ra	7990	0.000528786	0.004542033	-0.29932949	1373.420698	1104.900367	chr7	125580077	125586116	intergenic
ENSMUSG00000020272	Stk10	17030	0.000350245	0.003238453	-0.298891205	1325.058162	1066.179089	chr11	32542978	32548931	intron
ENSMUSG00000027215	Cd82	1088	1.05242E-08	3.8348E-07	-0.298842941	4888.8400465	3958.913511	chr2	93454678	93462458	promoter
ENSMUSG00000032035	Ets1	16715	2.17378E-08	7.30014E-07	-0.298833755	6823.94902	5528.285242	chr9	32693259	32709597	promoter
ENSMUSG00000091191	Gm17334	1545	4.4359E-07	1.05565E-05	-0.298717107	3493.817243	2825.909769	chr11	53770029	53777432	promoter
ENSMUSG00000040247	Tbc1d10c	994	2.27891E-07	5.86476E-06	-0.298297481	4445.35716	3597.754296	chr19	4179990	4191890	promoter
ENSMUSG00000045827	Serpinc9	9150	0.000877732	0.006874345	-0.29827387	1388.900348	1117.593952	chr13	33002123	33007120	promoter
ENSMUSG00000013707	Trafip82	6013	0.000355647	0.003276108	-0.297180069	1253.424466	1010.19725	chr3	95139408	95143365	promoter
ENSMUSG00000041471	Fam35a	3450	8.05404E-06	0.000129291	-0.296851705	2255.930247	1825.846553	chr14	34309310	34315626	promoter
ENSMUSG00000032688	Malt1	296	5.25741E-06	8.91904E-05	-0.295941446	3764.170777	3050.743195	chr18	65430989	65438062	promoter
ENSMUSG00000051391	Yvhag	1623	0.000127202	0.001394619	-0.295210234	1538.640521	1243.188773	chr5	135931069	135936609	promoter
ENSMUSG00000057594	Arl16	4556	0.000994449	0.007642715	-0.295030976	1166.135262	938.796304	chr11	120464209	120467436	promoter
ENSMUSG00000017843	Ppp2r5c	4625	7.03879E-05	0.000849698	-0.294866519	2059.143445	1664.520524	chr12	110495795	110503453	intron
ENSMUSG00000089796	Gm16575	1503	6.38613E-06	0.000105968	-0.294797769	2429.216017	1968.739929	chr15	79736510	79743509	promoter
ENSMUSG00000021356	Irif4	17207	0.000709683	0.006312975	-0.294506377	1125.941057	907.5656595	chr13	30780724	30786228	intergenic
ENSMUSG00000032312	Csk	203	4.19847E-07	0.000010032	-0.294307409	4732.610793	3832.348314	chr9	57637063	57647693	promoter
ENSMUSG00000026785	Pkn3	7583	0.000585967	0.004944846	-0.294058883	1176.266524	949.1171434	chr2	30076551	30082762	promoter
ENSMUSG00000025578	Cbx8	6090	0.001279276	0.009340133	-0.292404022	1000.683169	807.9599979	chr11	119053945	119059122	intergenic
ENSMUSG00000031933	Izumo1r	7384	1.01456E-05	0.000159109	-0.292378915	2448.220032	1986.365672	chr9	14898873	14907968	promoter
ENSMUSG00000061689	Digap4	6017	0.000784672	0.002680241	-0.292335688	1121.900962	906.7802132	chr2	156727889	156732915	intron
ENSMUSG00000097357	Gm16793	1496	3.09818E-09	1.24311E-07	-0.291946407	5601.987312	4561.170333	chr8	35586219	35598553	promoter
ENSMUSG0000006418	Rnf114	235	2.91038E-09	5.36676E-05	-0.291928416	2801.448251	2275.505144	chr2	167502232	167508294	promoter
ENSMUSG000000202642	Rnf144a	4712	0.000396762	0.003594286	-0.291865247	1304.66713	1056.298839	chr12	26067351	26070842	intergenic
ENSMUSG000000051735	Rin1	2888	3.37116E-06	6.09116E-05	-0.291445388	4681.841898	3802.952966	chr7	28776945	28793043	promoter
ENSMUSG000000086652	Gm14029	9545	0.000704052	0.000606801	-0.291275746	1151.002111	930.507422	chr2	129179498	129184914	promoter
ENSMUSG00000062235	Gm5341	14081	7.63289E-05	0.000910819	-0.290868846	1782.078657	1446.632272	chr7	90064349	90072637	intergenic
ENSMUSG00000036461	Eif1	17129	0.000154324	0.0001639108	-0.290622968	2076.559938	1684.141425	chr14	79529599	79539475	intron
ENSMUSG00000003309	Ap1m2	4131	0.000106167	0.001195245	-0.290610241	1780.329519	1444.421658	chr9	21320184	21325294	intergenic
ENSMUSG00000036817	Sun1	7093	0.000412908	0.003720132	-0.290382568	1285.842814	1041.76096	chr5	139200645	139206690	promoter
ENSMUSG00000031659	Adcy7	2549	8.69778E-06	0.000138497	-0.29005746	2715.795364	2207.511182	chr8	88287696	88298131	promoter
ENSMUSG00000005763	Cd247	798	3.11235E-08	1.00911E-06	-0.288705155	5145.138869	4198.291155	chr1	165787390	165798990	promoter
ENSMUSG00000054499	Dedd2	3061	1.44112E-05	0.000215969	-0.288308674	2859.7647					

ENSMUSG000000023262	Acy1	9830	9.15123E-05	0.00106179	-0.284406959	1733.83557	1413.693535	chr9	106431451	106438274	promoter
ENSMUSG000000088332	Gm22847	4150	9.43591E-07	0.204632E-05	-0.28427163	3935.674266	3216.159007	chr5	34525828	34538411	promoter
ENSMUSG000000097372	Gm26876	9244	1.28764E-06	2.66631E-05	-0.283948448	3157.50685	2581.606641	chr10	128632484	128648239	promoter
ENSMUSG00000107013	RP23-387P23.	4337	0.000323558	0.003037287	-0.283651378	1464.505882	1193.495204	chr6	127264118	127271313	intergenic
ENSMUSG000000025085	Ablim1	5977	0.000082841	0.000975535	-0.28364587	1885.151844	1538.871299	chr19	57113998	57121209	promoter
ENSMUSG000000027540	Ptpn1	14240	8.20928E-08	2.37635E-06	-0.28285092	4377.612803	3583.786344	chr2	167927737	167942294	promoter
ENSMUSG000000041506	Rrp9	16956	0.000433255	0.003869844	-0.283152134	1529.70332	1245.193528	chr9	106469149	106476141	promoter
ENSMUSG000000088416	Gm24239	5533	0.000185897	0.001916623	-0.282606217	1744.525716	1422.415744	chr8	120713713	120718285	promoter
ENSMUSG000000090207	4930524007R	2067	0.001183763	0.008802536	-0.28206594	1194.236682	972.5254268	chr9	106892154	106896555	promoter
ENSMUSG00000036478	Btg1	11721	0.000732534	0.005959733	-0.281924565	128.376604	1017.776158	chr10	96721256	96728762	intergenic
ENSMUSG00000028965	Tnfrsf9	14449	0.000106947	0.001201968	-0.281760555	1977.290769	1616.030362	chr4	150925256	150932036	promoter
ENSMUSG00000028937	Acot7	16822	0.000299595	0.002858622	-0.281275631	1607.477966	1311.269934	chr4	152178198	152183345	promoter
ENSMUSG00000035011	Zbtb7a	3684	0.001049895	0.007999474	-0.280298084	1209.86187	985.8704644	chr10	81127260	81132709	intergenic
ENSMUSG00000042507	Elmsan1	8315	0.000319746	0.0030101	-0.280213477	1695.196169	1383.633135	chr12	84171601	84179599	intron
ENSMUSG00000077505	Gm24233	982	0.000926485	0.007195509	-0.279825372	1616.009861	1319.869478	chr12	59129793	59134808	promoter
ENSMUSG00000104998	RP23-243E17.	5204	0.000101869	0.00115877	-0.279690283	2399.482511	1965.108006	chr3	37226587	37235876	promoter
ENSMUSG00000060261	Gtf2i	1111	0.000243158	0.002408729	-0.278802793	1566.407289	1281.736986	chr5	134310343	134314750	promoter
ENSMUSG00000026580	Selp	3206	0.000175531	0.001828878	-0.278782622	1805.979778	1479.043556	chr1	164136969	164140841	promoter
ENSMUSG00000086884	Gm16225	9319	0.00073809	0.005992573	-0.278764222	1440.089031	1175.478679	chr4	135099251	135107725	intergenic
ENSMUSG00000037992	Rara	2250	5.50505E-05	0.000682952	-0.278676358	2632.954382	2155.405399	chr11	98935960	98943238	promoter
ENSMUSG00000086016	1700084C06R	4183	0.000128106	0.001402979	-0.27855562	1943.762269	1591.785328	chr9	21085999	21091996	promoter
ENSMUSG00000012819	Cdh23	14321	2.12025E-05	0.000303312	-0.278393107	2806.207434	2300.06513	chr10	60375508	60387342	promoter
ENSMUSG00000087624	9230111E07R	118	4.58437E-06	7.96952E-05	-0.277845565	2865.611833	2352.281311	chr2	167771563	167782687	promoter
ENSMUSG00000020827	Min1k	2646	0.000289382	0.0027746	-0.277823488	1621.83181	1327.763167	chr11	70561676	70566511	promoter
ENSMUSG00000007817	Zmiz1	4523	0.000677397	0.005573255	-0.277017363	1457.164242	1191.185124	chr14	25604871	25609345	promoter
ENSMUSG000000059248	42622	8114	7.16922E-06	0.000117186	-0.276941565	325.522822	2648.221431	chr11	117342873	117358302	promoter
ENSMUSG00000033220	Rac2	597	2.34861E-07	6.03627E-06	-0.27691873	4269.355242	3510.291968	chr15	78564212	78577499	promoter
ENSMUSG00000054808	Actn4	14107	3.34273E-05	0.000447354	-0.276717519	2174.742647	1785.097322	chr7	28939446	28954345	promoter
ENSMUSG00000018143	Mafk	1281	0.00042825	0.003833829	-0.276053295	1488.632643	1219.768223	chr5	139791530	139796535	promoter
ENSMUSG00000014444	Piezo1	16720	0.000147952	0.001580798	-0.275770211	1765.698842	1448.244504	chr8	122549397	122552584	promoter
ENSMUSG00000092966	Gm22420	1129	0.000211473	0.002145528	-0.275258563	1638.369009	1344.062809	chr19	47916110	47920624	promoter
ENSMUSG00000053898	Ech1	1701	4.7375E-08	1.48239E-06	-0.27512417	6243.745965	5141.78789	chr7	28810881	28826864	promoter
ENSMUSG00000074284	Gm10658	6078	0.001225	0.009032688	-0.274565147	1163.974189	953.2002525	chr9	57068617	57073419	promoter
ENSMUSG00000050721	Plekho2	4450	0.001047025	0.007993803	-0.2747016193	1338.674443	1096.115492	chr9	65576298	65580047	promoter
ENSMUSG00000047090	Tmem198b	7251	0.001380568	0.009969815	-0.273781463	1183.114714	968.8348412	chr10	128801324	128805389	promoter
ENSMUSG00000087222	E03040220R	1963	2.00513E-05	0.00028852	-0.273734333	3107.546357	2558.99834	chr2	75696302	75707795	promoter
ENSMUSG00000020346	Mgat1	3421	1.24177E-05	0.00018922	-0.272974983	3357.486185	2766.917472	chr11	49241731	49255483	promoter
ENSMUSG00000017774	Myo1c	955	1.21082E-05	0.000185174	-0.272418864	3206.150026	2640.656265	chr11	75650163	75659260	promoter
ENSMUSG00000029401	Rilp2	1704	0.000254173	0.00249875	-0.272208399	1664.357729	1368.158009	chr5	124473869	124478363	promoter
ENSMUSG00000037447	Arid5a	3287	3.92961E-06	6.97878E-05	-0.271766691	3189.709993	2630.558889	chr1	36305818	36312635	promoter
ENSMUSG00000036943	Rab8b	17082	0.00108969	0.008252423	-0.271601631	1229.388243	1009.571806	chr9	66913446	66918590	promoter
ENSMUSG00000024959	Bad	3408	3.95863E-05	0.000515092	-0.271443211	2253.909495	1857.324258	chr19	6947778	6956962	promoter
ENSMUSG00000044471	Lincpint	992	1.05823E-05	0.000165563	-0.271030275	4736.222552	3908.881823	chr6	31113564	31126494	intron
ENSMUSG000000085148	Mir22hg	284	0.000923359	0.00718318	-0.27049768	1398.502623	1148.86046	chr11	75461644	75646117	promoter
ENSMUSG00000079323	Gm20661	8609	5.70081E-05	0.000703694	-0.27005082	2270.836347	1871.849536	chr9	107975510	107985863	promoter
ENSMUSG00000078695	Cisd3	8656	0.000749284	0.006058505	-0.269714571	1826.741955	1501.283866	chr11	97681360	97688332	promoter
ENSMUSG000000808575	Mir1190	506	6.2757E-08	1.90599E-06	-0.269142118	5733.798085	4742.729244	chr12	101013927	101029859	promoter
ENSMUSG00000039316	Rftn1	2570	0.000521352	0.004497771	-0.268315065	1630.750537	1343.187893	chr17	50187535	50193666	promoter
ENSMUSG00000034394	Lif	14342	5.47121E-05	0.000680038	-0.268241302	2443.621054	2019.108147	chr11	4262212	4268594	promoter
ENSMUSG00000034168	Irf2bp1	2468	7.33063E-06	0.000119429	-0.268077488	3109.084097	2571.115407	chr12	86882349	86892546	promoter
ENSMUSG00000018654	Ikfz1	18819	0.000961411	0.00743918	-0.268018133	1308.085336	1077.567102	chr11	11713032	11721138	intron
ENSMUSG00000026421	Csrp1	2237	9.47168E-05	0.001089879	-0.26750328	2386.695214	1888.248643	chr1	135726646	135734552	promoter
ENSMUSG00000024777	Ehd1	9321	0.000983536	0.007573612	-0.266428915	1409.074731	1161.135655	chr19	6297949	6304930	promoter
ENSMUSG00000049090	Zadh2	2523	4.56024E-05	0.000577366	-0.26640163	2599.965304	2149.058606	chr18	84083577	84091108	promoter
ENSMUSG00000067577	A430093F15R	111	1.85141E-11	1.18882E-09	-0.266084438	15498.87534	12865.87226	chr19	10715150	10746476	promoter
ENSMUSG00000055323	Gm9967	4660	0.000484674	0.004236977	-0.265754919	1879.195778	1550.56864	chr7	126774121	126783580	promoter
ENSMUSG00000070407	H3st3b1	6912	0.000603744	0.005079893	-0.265382421	1543.807832	1274.602477	chr11	63914681	63922424	promoter
ENSMUSG000000105204	RP24-394C15.	16837	0.000122546	0.001352604	-0.265033464	2006.832764	1660.175817	chr3	89093795	89101941	promoter
ENSMUSG000000039191	Rbpj	1303	0.000023511	0.000330343	-0.264529832	4810.358605	3988.141134	chr5	53586494	53596043	promoter
ENSMUSG000000034832	Tet3	2603	1.19613E-06	0.000183069	-0.264184701	3801.048768	3149.34662	chr6	83445576	83460639	promoter
ENSMUSG000000026581	Sell	5550	9.24554E-05	0.001070214	-0.263970603	2752.353795	2280.697564	chr1	164073408	164082058	intron
ENSMUSG00000020883	Fbxl20	2249	0.001281713	0.009354468	-0.263701266	1333.559736	1102.253756	chr11	98147237	98150439	promoter
ENSMUSG00000009621	Vav2	5344	0.001071541	0.008130592	-0.263201018	1567.328235	1294.295642	chr2	27420980	27427055	promoter
ENSMUSG000000104947	Gm10555	1306	0.000575325	0.004880945	-0.26220573	1529.834615	1266.558922	chr1	79757908	79763538	promoter
ENSMUSG000000020401	Fam71b	233	1.60147E-08	5.59747E-07	-0.262176127	18396.6727	15304.13834	chr11	46362969	46399168	promoter
ENSMUSG00000026305	Lrrfip1	1062	1.73147E-08	5.99867E-07	-0.261572629	7230.16202	6015.326966	chr1	91050398	91067061	promoter
ENSMUSG00000026288	Inpp5d	5414	0.000217193	0.002635451	-0.261103236	1783.023386	1478.614233	chr1	87619041	87625058	promoter
ENSMUSG00000055817	Mta3	2833	0.000599566	0.005050848	-0.260158799	1651.					

ENSMUSG00000016933	Plcg1	16871	0.000799198	0.00636549	-0.253660941	1602.368476	1334.986211	chr2	160729767	160734400	promoter
ENSMUSG00000037824	Tspan14	8367	0.000306467	0.002912911	-0.253651346	1947.028276	1624.076617	chr14	40949971	40960792	intron
ENSMUSG00000038615	Nfe2l1	2604	9.23275E-05	0.001069361	-0.25365044	2393.418842	1997.534225	chr11	96824340	96829967	promoter
ENSMUSG00000026923	Notch1	16749	1.07759E-06	2.28704E-05	-0.253476579	5069.177386	4237.871078	chr2	26493743	26507683	promoter
ENSMUSG00000030245	Golt1b	776	0.000788705	0.006302286	-0.253131721	1616.568744	1347.716595	chr6	142386001	142390186	promoter
ENSMUSG00000024404	Riok3	524	0.000825961	0.006536398	-0.252152734	1863.023553	1554.800281	chr18	12126854	12131306	promoter
ENSMUSG00000028581	Laptm5	458	1.76537E-09	7.52008E-08	-0.251761424	10372.97135	8694.265588	chr4	130896642	130923129	promoter
ENSMUSG00000025790	Slc03a1	1690	0.000286647	0.002753743	-0.251717139	2025.487882	1692.501236	chr7	74551114	74556696	promoter
ENSMUSG00000008318	Re1t	5622	0.000153515	0.001632281	-0.251700189	2891.418065	2414.641263	chr7	100850295	100863479	promoter
ENSMUSG00000065468	Mir26b	1563	0.000109675	0.001227031	-0.25167426	2462.67485	2057.64276	chr1	74386259	74395547	promoter
ENSMUSG00000048163	Selp1g	1826	6.51519E-05	0.000793782	-0.250668745	3240.261101	2710.158734	chr5	113823158	113833957	promoter
ENSMUSG00000074886	Grk6	2127	0.000138562	0.00150329	-0.250521712	2540.873277	2124.039425	chr13	55445330	55452964	promoter
ENSMUSG00000087574	C030037D09R	14302	0.000210583	0.002139647	-0.249970883	2131.921421	1782.944036	chr11	88715857	88721099	promoter
ENSMUSG00000044471	Lincpint	2783	0.000660755	0.005460904	-0.248625907	1713.364648	1432.919244	chr6	31213858	31219249	promoter
ENSMUSG00000035621	Midn	1802	4.73238E-06	8.19766E-05	-0.248594141	5590.935999	4686.264315	chr10	80149671	80159787	promoter
ENSMUSG00000038037	Socs1	786	7.50868E-05	0.000898171	-0.247880404	2802.987402	2348.984584	chr16	10782357	10786437	promoter
ENSMUSG00000028822	Trem50a	93	0.000853686	0.006718049	-0.24629949	1702.804206	1426.806847	chr4	134912381	134918560	promoter
ENSMUSG00000057406	Whsc1	703	0.000142969	0.001544305	-0.246152008	2355.284736	1976.843481	chr5	33817442	33824077	promoter
ENSMUSG00000031132	Cd40lg	9153	0.000523095	0.004504924	-0.244825349	2306.279407	1936.59984	chrX	57211463	57218862	promoter
ENSMUSG00000019189	Rnf145	4239	0.000777506	0.006240625	-0.244673811	1770.996037	1485.095956	chr11	44517332	44522772	promoter
ENSMUSG00000031513	Leprotl1	2422	2.47316E-05	0.000345034	-0.243581202	3786.796322	3188.284688	chr8	34141193	34151243	promoter
ENSMUSG00000038976	Ppp1rb	4149	7.00684E-06	0.000115009	-0.243050952	4053.068831	3790.523901	chr11	94986772	95003550	promoter
ENSMUSG00000067577	A430093F15R	6361	1.89914E-06	3.74377E-05	-0.242290143	4790.82278	4039.198938	chr19	10751110	10763492	intron
ENSMUSG00000092368	A930015D03R	6151	0.001261203	0.009250263	-0.242057394	1608.996245	1352.377558	chr17	35997271	36001208	intron
ENSMUSG00000028943	Espn	16879	5.75481E-06	9.67132E-05	-0.241916597	4163.492432	3509.246658	chr4	152120803	152133672	promoter
ENSMUSG000000100150	Gm19585	5750	0.00122336	0.009025488	-0.241715568	1707.423009	1435.858912	chr17	52163232	52169940	intergenic
ENSMUSG00000024805	Pcgf5	873	0.000501465	0.004356714	-0.241178023	1934.293685	1627.802667	chr19	36346713	36352047	intergenic
ENSMUSG00000093004	Gm24158	1471	6.47582E-06	0.000107095	-0.241164555	4823.683384	4069.687327	chr11	97655076	97667437	promoter
ENSMUSG00000027466	Rbck1	519	0.000562946	0.004785404	-0.240777115	1927.518967	1622.206792	chr2	152328087	152333136	promoter
ENSMUSG00000003500	Impdh1	14374	0.000137376	0.001492886	-0.240605173	2568.096815	2163.474821	chr6	29206766	29216896	promoter
ENSMUSG00000037405	Icam1	4175	0.000375421	0.00342624	-0.240270714	2287.091495	1926.472593	chr9	21013945	21023308	promoter
ENSMUSG00000096727	Cdkn2d	1765	0.0007804	0.006260181	-0.23952785	1880.714057	1584.172423	chr9	21288258	21291152	promoter
ENSMUSG00000026864	Hspa5	1091	0.000656615	0.005438592	-0.239474988	1951.488345	1644.752426	chr2	34772074	34777116	promoter
ENSMUSG00000078671	Chd2	1956	0.001097504	0.008292486	-0.239436017	2506.069627	2111.030918	chr7	73528958	73537772	promoter
ENSMUSG00000030275	Etnk1	1789	0.000462742	0.004081449	-0.23913624	2192.186639	1848.897777	chr6	143165825	143172614	promoter
ENSMUSG00000014244	Snd1	1276	0.000825655	0.00536398	-0.238112785	1983.606167	1672.831269	chr6	28480384	28487023	promoter
ENSMUSG00000096727	Psmb9	16683	8.16742E-05	0.000964676	-0.237956397	3709.858803	3134.468542	chr17	34182199	34188693	promoter
ENSMUSG00000024858	Adrb1	493	8.96516E-06	0.000142066	-0.237589562	5156.612128	4358.315615	chr19	4293536	4309006	promoter
ENSMUSG00000055805	Fmn1	15	1.91098E-05	0.000277607	-0.235500568	5240.117199	4437.151197	chr11	103168920	103174951	promoter
ENSMUSG00000022843	Sh3bgrl3	3468	0.000304455	0.002897981	-0.235390794	2412.383511	2039.09437	chr4	134124538	134131662	promoter
ENSMUSG00000085823	Gm13012	9986	0.001179416	0.008777395	-0.234326149	1904.308024	1608.602826	chr4	137875689	137885336	promoter
ENSMUSG00000084651	Mir1904	2482	4.07773E-05	0.000528496	-0.233761734	4011.194905	3401.189047	chr13	109900636	109910970	promoter
ENSMUSG00000002920	Itgb2	2427	4.34809E-05	0.000555862	-0.232961411	3443.040494	2919.418904	chr10	7752767	77538654	promoter
ENSMUSG00000038855	Itpkb	5764	0.001055351	0.008035588	-0.232197931	1840.943633	1558.564464	chr1	180387712	180394613	intron
ENSMUSG00000085731	Gm16229	3627	2.92193E-05	0.000396694	-0.231438759	5401.989503	4584.35248	chr10	127656758	127673201	promoter
ENSMUSG00000040270	Bach2	16771	0.000786477	0.006292139	-0.230865628	1973.577289	1673.509923	chr4	32368069	32375177	intron
ENSMUSG00000020190	Mkn2	571	9.70455E-05	0.001110962	-0.230798447	6115.846385	5189.610298	chr10	80662165	80676336	promoter
ENSMUSG000000100441	Gm7266	16810	0.000213738	0.002162942	-0.229921183	4073.197414	3461.458379	chr1	144301825	144312189	promoter
ENSMUSG00000043421	Hilpda	1762	0.000210188	0.008959719	-0.229920072	2006.069111	1701.335176	chr6	29272261	29278471	promoter
ENSMUSG00000028071	Sh2d2a	1421	0.00015822	0.001671481	-0.228404607	3100.649369	2635.407851	chr3	87845285	87854326	promoter
ENSMUSG00000093390	Gm20652	253	3.63741E-05	0.00047422	-0.228213037	4130.252611	3513.697758	chr3	88617771	88625159	promoter
ENSMUSG00000018209	Stk4	16898	0.000830931	0.006571561	-0.226697983	2622.142391	2230.914666	chr2	164078198	164090908	promoter
ENSMUSG00000085887	Arhgap27os3	1070	0.000173895	0.001816632	-0.224555497	3219.755871	2744.385439	chr11	103349747	103349747	promoter
ENSMUSG00000031799	Tpm4	20	0.000325303	0.003050599	-0.22440365	2684.119797	2288.34726	chr8	72134100	72139952	promoter
ENSMUSG00000069833	Ahnak	359	4.77395E-05	0.000602875	-0.224112364	4003.086791	3415.396734	chr19	8984774	8997645	promoter
ENSMUSG00000037321	Tap1	49	4.35009E-05	6.71576E-05	-0.223215222	5551.016231	4743.775889	chr7	34188856	34202235	promoter
ENSMUSG00000049327	Setd8	1722	0.000349625	0.003234238	-0.221605914	2603.23794	2223.831352	chr5	124443191	124451973	promoter
ENSMUSG00000032115	Hyou1	332	0.000548971	0.00469495	-0.221280005	2452.317947	2094.236618	chr9	44379589	44385803	promoter
ENSMUSG000000105883	RP23-371A16.	16692	2.52677E-07	6.41885E-06	-0.221178929	9286.766586	7952.158531	chr5	123132831	123154252	promoter
ENSMUSG00000063524	Ero1	983	8.20716E-05	0.000968789	-0.22037571	3662.968573	3135.123997	chr4	150236083	150245118	promoter
ENSMUSG00000009793	Ptprrv	702	0.000107225	0.001203713	-0.219684015	3407.108217	2917.031222	chr1	135130806	135138010	promoter
ENSMUSG0000008855	Hdac5	6894	0.000399751	0.003611495	-0.219182653	3223.915415	2757.655544	chr11	102213430	102230134	promoter
ENSMUSG000000049323	Smcr8	2645	0.000193857	0.0019883	-0.218698653	3195.45988	2735.888029	chr11	60774882	60783132	promoter
ENSMUSG00000004837	Grap	472	1.22494E-06	2.54986E-05	-0.217782792	7403.68147	6353.779749	chr11	61651143	61670137	promoter
ENSMUSG000000099031	Mir7240	5538	0.000300806	0.002866012	-0.216442641	2890.729298	2478.850513	chr8	70797372	70808233	promoter
ENSMUSG00000052949	Rnf157	310	0.000238388	0.002371011	-0.215894866	3042.231866	2610.351871	chr11	116406794	116413772	promoter
ENSMUSG000000032322	PstPIP1	870	9.50498E-05	0.001092546	-0.21542844	4031.176366	3462.207962	chr9	56087222	56097285	promoter
ENSMUSG000000070691	Runx3	1596	7.89653E-05	0.00098302	-0.215107086	3830.825853	3290.229901	chr4	135147471</		

ENSMUSG000000056917	Sipa1	4205	0.001000393	0.007677046	-0.208208116	3548.45442	3058.491022	chr19	5657442	5670991	promoter
ENSMUSG000000063229	Ldha	266	0.000742651	0.006017211	-0.206700751	2771.634642	2393.402537	chr7	46842459	46848450	promoter
ENSMUSG000000067577	A430093F15R	431	0.000016756	0.000246501	-0.205646833	6912.215246	5979.797357	chr19	10781922	10798127	promoter
ENSMUSG000000038650	Rnh1	14248	0.000363455	0.003334012	-0.205290233	3366.155578	2911.605741	chr7	141166488	141175096	promoter
ENSMUSG000000021298	Gpr132	25	0.000195539	0.002002417	-0.204405069	3807.174065	3294.326612	chr12	112854822	112862523	promoter
ENSMUSG000000032515	Csrnp1	2071	0.000015503	0.000230129	-0.204064388	6292.284359	5450.470661	chr9	119970559	119988441	promoter
ENSMUSG000000050565	Tor1aip2	157	0.000535686	0.00459329	-0.202962032	4773.060212	4135.537344	chr1	156032428	156044168	promoter
ENSMUSG000000102324	Gm19721	325	4.09571E-05	0.000530477	-0.202246738	6338.867436	5496.259778	chr9	107622912	107635424	promoter
ENSMUSG000000002699	Lcp2	109	5.03793E-05	0.00063176	-0.201178863	7402.49164	6427.016531	chr11	34042603	34064683	promoter
ENSMUSG000000037514	Pank2	2380	0.001340951	0.009743522	-0.200966953	2753.320806	2387.535467	chr2	131259184	131265563	promoter
ENSMUSG000000055491	Prrc1	2503	0.000484288	0.024325216	-0.200367898	4648.435668	4032.538813	chr19	46034405	46048088	promoter
ENSMUSG00000004056	Akt2	1575	0.0008126	0.006453981	-0.199635055	2978.447501	2584.521776	chr7	27591638	27600684	promoter
ENSMUSG000000073982	Rhog	300	7.52576E-05	0.000899668	-0.19922157	5096.769705	4428.98072	chr7	102241447	102252854	promoter
ENSMUSG000000092596	Gm20490	4075	0.0000322859	0.003032171	-0.198347656	4780.236004	4152.912422	chr2	173017975	173035666	promoter
ENSMUSG000000053192	Milt11	388	0.000547287	0.004684606	-0.19716084	4383.456049	3814.01538	chr3	95224653	95234272	promoter
ENSMUSG000000014191	Mef2d	3090	0.000502385	0.004362781	-0.196886955	4873.704094	4237.721212	chr3	88136997	88153984	promoter
ENSMUSG000000050628	Ubald2	144	0.000458821	0.004059573	-0.196692238	3444.885388	2997.166783	chr11	116434178	116438105	promoter
ENSMUSG000000090213	Trem189	1707	0.000511931	0.004423178	-0.19630166	4244.649712	3692.431405	chr2	167650599	167661562	promoted
ENSMUSG000000032011	Thy1	2246	0.000854103	0.006718651	-0.195650792	3264.877024	2825.370049	chr9	44040156	44049156	promoter
ENSMUSG000000020400	Trip1	267	9.42332E-05	0.001086327	-0.194942632	5275.477336	4598.164974	chr11	54954352	54956568	promoter
ENSMUSG000000088067	Gm24480	1907	0.000660036	0.005457755	-0.194233575	3338.993668	2909.540988	chr4	124697538	124707738	promoter
ENSMUSG000000078923	Ube2v1	638	0.001113293	0.003889276	-0.192938768	3555.812918	2925.272373	chr2	167626606	167634452	promoted
ENSMUSG000000084497	Gm22107	2513	0.000121053	0.001336876	-0.191130965	5087.71531	4446.908056	chr15	77829000	77842168	promoter
ENSMUSG000000073771	Btdb19	288	0.000317274	0.002993977	-0.190420408	6393.639715	5587.636155	chr4	117117766	117133985	promoter
ENSMUSG000000032094	Cd3d	941	0.000255233	0.002506927	-0.189334178	4844.210895	4239.791303	chr9	44977406	44986635	promoter
ENSMUSG000000021998	Lcp1	434	4.31121E-05	0.00055201	-0.188740901	8464.195641	7414.924546	chr14	75174151	75192922	promoter
ENSMUSG000000020437	Myo1g	263	0.000350738	0.003241493	-0.188318931	4325.460916	3788.003959	chr11	6513149	6522800	promoter
ENSMUSG000000100985	Gm10640	878	0.000232993	0.002323694	-0.18598941	5092.871341	4467.873726	chr7	31144414	31157423	promoter
ENSMUSG000000028645	Slc2a1	1683	0.00023712	0.00236078	-0.182728749	5978.543102	5255.540842	chr4	119106017	119126021	promoter
ENSMUSG000000098856	Mir8113	406	3.49078E-05	0.000463704	-0.181273502	9101.887684	8013.365446	chr6	125215000	125241588	promoter
ENSMUSG000000065455	Mir21a	139	0.000321199	0.003022336	-0.180514189	6404.382889	5641.784828	chr11	86573524	86586887	promoter
ENSMUSG0000000209270	Bach2	1825	0.000630127	0.00525897	-0.176674765	5116.495629	4518.513139	chr4	32236926	32250709	promoter
ENSMUSG000000093559	Gm20705	6879	0.000715951	0.005829634	-0.175412324	5393.111533	4764.461294	chr6	99367784	99393411	promoter
ENSMUSG000000034765	Dusp5	16711	0.000586377	0.004946191	-0.168957591	6454.515433	5732.635087	chr19	53526329	53536784	promoter
ENSMUSG000000037553	Zdhhc18	180	0.000605597	0.005093061	-0.168018352	5428.773606	4822.460015	chr4	133622763	133635204	promoter
ENSMUSG000000103593	Gm37352	384	0.001120926	0.002843717	-0.167220071	4559.909248	4052.286382	chr8	84196799	84204712	promoter
ENSMUSG000000022443	Myh9	8116	0.000926025	0.007195399	-0.166885078	5970.176631	5305.906391	chr15	77800823	77824963	promoter
ENSMUSG000000020923	Ubtf	117	0.000334535	0.003115112	-0.1663328355	6525.642424	5805.634804	chr11	102309270	102322504	promoter
ENSMUSG000000056459	Zbtb25	107	0.000908259	0.007090892	-0.153641186	7334.80609	6585.61142	chr12	76361573	76374075	promoter
ENSMUSG000000105497	mmu-mir-191	2825	0.001150622	0.002680503	-0.153061443	5857.613988	5621.68003	chr9	108560018	108581481	promoter
ENSMUSG000000089083	Rnu7	3276	0.001203954	0.008922387	-0.159056869	5152.091842	5761.586176	chr6	124735641	124751722	promoter
ENSMUSG000000089571	Gm23008	1591	0.000584511	0.004936788	-0.163067897	5247.638505	5885.18158	chr9	20885797	20898600	promoter
ENSMUSG000000102425	Gm26616	63	0.000325248	0.003050599	-0.170748753	5233.290014	6001.7734	chr1	133128753	133139135	promoter
ENSMUSG000000061589	Dot1l	151	0.001130085	0.00848895	-0.176921168	3910.916558	4432.750497	chr10	80755126	80763481	promoter
ENSMUSG000000052926	Rnaseh2a	207	0.000188301	0.001939381	-0.184829803	6364.172606	7247.981032	chr8	84966296	84978710	promoter
ENSMUSG000000065495	Mir150	73	0.001011327	0.007745257	-0.184908657	3575.78556	4073.918967	chr7	45117621	45124400	promoter
ENSMUSG000000104291	A130071D04R	1391	0.001192443	0.008857056	-0.188556402	5178.171525	5921.934901	chr1	138166506	138176651	promoter
ENSMUSG000000055818	A230083G16R	1071	4.19811E-05	0.00054197	-0.196783586	523.657521	6009.68069	chr6	124908085	124921657	promoter
ENSMUSG000000098813	Gm27326	39	0.000431733	0.003856492	-0.196877633	3111.047029	3575.395327	chr11	9777281	97784386	promoter
ENSMUSG000000086779	Gm13562	1295	0.00075092	0.006064274	-0.197963531	3721.480421	4279.981875	chr2	26342959	26358354	promoter
ENSMUSG000000097354	2310001H17R	14261	0.000200952	0.002051462	-0.197983861	3714.793845	4273.087099	chr6	129209296	129221759	intron
ENSMUSG000000094569	Trbd2	729	3.05846E-05	0.000413522	-0.199285026	14181.90062	16320.35292	chr6	41533909	41561505	promoter
ENSMUSG000000024844	Banf1	1743	0.000831071	0.006571561	-0.200205175	2500.345829	2881.384543	chr19	5362789	5370637	promoter
ENSMUSG000000020128	Vps54	213	0.001036244	0.007923773	-0.201113387	3594.573384	4148.83624	chr11	21238030	21243848	promoter
ENSMUSG000000024359	Hspa9	14201	0.000505315	0.004380505	-0.201819735	2844.038619	3282.063683	chr18	34949598	34954630	promoter
ENSMUSG000000098992	Gm27597	97	0.0000993882	0.001082921	-0.206615219	3983.773226	4610.72363	chr11	98018844	98030845	promoter
ENSMUSG000000105743	mmu-mir-194	16681	0.000246699	0.002438412	-0.208826948	3150.750607	3653.775464	chr18	35551690	35560807	promoter
ENSMUSG000000095868	Gm23136	95	0.000193341	0.00198507	-0.209130656	3335.633316	3868.728305	chr9	64170619	64177898	promoter
ENSMUSG000000057863	Rpl36	14324	0.000873196	0.006845844	-0.210189507	2371.641257	2689.748782	chr17	56613134	56621286	promoted
ENSMUSG000000064563	Snora7a	260	0.000998535	0.001127348	-0.211738583	3404.067851	3952.287261	chr6	115803679	115812860	promoter
ENSMUSG000000093273	Mir3064	1047	0.000266882	0.002661904	-0.21189427	2783.701337	3235.493778	chr11	106782704	106791003	promoter
ENSMUSG000000055041	Commd5	655	3.55997E-05	0.000470045	-0.211915179	4336.067153	5035.526506	chr15	76897750	76908273	promoter
ENSMUSG000000020307	Cdc34	1106	0.000609957	0.005125354	-0.213109331	2291.970127	2666.549026	chr10	79682107	79687828	promoter
ENSMUSG000000019850	Tnfaiap3	774	0.000083173	0.000978859	-0.214590869	5723.226402	6663.877156	chr10	19005849	19015372	promoter
ENSMUSG000000067311	B4galnt1	131	0.0009535	0.000518582	-0.215689814	4857.934779	5655.166665	chr10	127163158	127127666	promoter
ENSMUSG00000001833	42620	55	0.000210512	0.002139647	-0.216850218	2636.539389	3074.644802	chr9	25249729	25256383	promoter
ENSMUSG000000054342	Kcnn4	158	1.44396E-05	0.000215969	-0.217717106	7743.331343	9026.479561	chr7	24370166	24389104	promoter
ENSMUSG000000038671	Arfrp1	3018	0.001049042	0.00287							

ENSMUSG00000104599	AC154540.1	8	0.000155075	0.001642661	0.233223722	3824.858365	4517.053697	chr16	23105131	23113206	promoter
ENSMUSG00000040731	Eif4h	135	0.000658994	0.005453715	0.234361584	1873.249161	2215.230473	chr5	134637084	134641955	promoter
ENSMUSG00000096983	2010015M23f	67	0.000197522	0.002020633	0.234624857	3045.885129	3601.940875	chr11	88045489	88053298	promoter
ENSMUSG00000103861	Gm37419	1719	0.00010195	0.001159015	0.234954643	2439.675305	2882.604251	chr16	23985645	23991277	promoter
ENSMUSG00000074876	Spatas1l	901	0.00104682	0.007993803	0.235553424	1651.240113	1956.535663	chr2	122629464	122632868	promoter
ENSMUSG00000057322	Rpl38	1355	6.20183E-05	0.000760303	0.236126731	2607.737354	3082.774221	chr11	114668570	114673780	promoter
ENSMUSG00000028525	Pde4b	794	0.000026454	0.000364677	0.236262512	3705.150812	4381.207377	chr4	102569320	102577258	promoter
ENSMUSG00000013858	Tmem259	2575	0.000700862	0.005732817	0.236492367	2159.997739	2556.399461	chr10	79978816	79984892	promoter
ENSMUSG00000044783	Hjurp	23	0.000232414	0.000329451	0.237542653	3274.42478	3875.162297	chr1	88273430	88278025	promoter
ENSMUSG00000039850	Endov	3719	0.000498132	0.004339231	0.237699995	1750.717858	2073.954668	chr11	119487446	119494785	promoter
ENSMUSG0000006262	Mob1b	1502	0.00116165	0.008407883	0.237725403	1427.553991	1693.005491	chr5	88719249	88724167	promoter
ENSMUSG00000004040	Stat3	14245	0.0001955	0.002002417	0.238658797	2092.480433	2480.389146	chr11	100933190	100939535	promoter
ENSMUSG00000015120	Ube2i	805	6.64833E-06	0.00109856	0.239064473	3890.252534	4605.580275	chr17	25265060	25276287	promoter
ENSMUSG00000020914	Top2a	532	0.001073471	0.008142103	0.239676843	1409.103642	1673.583521	chr11	99020836	99024202	promoter
ENSMUSG00000015132	Gadd45b	3766	0.000306292	0.002912653	0.241000149	2030.960936	2413.510089	chr10	80930017	80935440	promoter
ENSMUSG00000035495	Tstd2	1611	0.000119814	0.001325414	0.241672177	2171.647281	2579.526952	chr4	46135279	46140925	promoter
ENSMUSG00000030168	Adipor2	1194	0.000870706	0.006832437	0.241691999	1527.735171	1817.444605	chr6	119386627	119391082	promoter
ENSMUSG00000022385	Gtse1	14427	0.000257884	0.002529188	0.242084858	1843.77923	2190.891281	chr15	85859708	85865798	promoter
ENSMUSG00000050807	Cd44	766	4.93464E-05	0.000621575	0.242209261	2594.715495	3082.209969	chr2	102898421	102903214	promoter
ENSMUSG00000028809	Srrm1	183	0.000684306	0.005620721	0.243021516	1501.338324	1786.634621	chr4	135349656	135353191	promoter
ENSMUSG00000048109	Rbm15	1720	0.001109744	0.008372134	0.243208037	1508.922668	1797.812771	chr3	107328704	107333089	promoter
ENSMUSG00000031320	Rps4x	4340	0.000736508	0.005983699	0.24529264	1483.080897	1769.081142	chrX	102185045	102189319	promoter
ENSMUSG00000064453	Snord21	391	0.00023937	0.002252282	0.245603594	2096.821053	2498.637805	chr5	107900563	107904699	promoter
ENSMUSG00000022280	Rnf19a	446	0.000714691	0.005828804	0.246613058	2268.932646	2711.189109	chr15	36277537	36285192	promoter
ENSMUSG00000063457	Rps15	367	0.000582654	0.004927727	0.246672732	2472.504177	2948.539053	chr10	80292433	80299869	promoter
ENSMUSG00000092405	Gm20402	932	0.000127694	0.001399236	0.246694392	2016.477207	2403.990567	chr3	52266054	52270707	promoter
ENSMUSG00000060636	Rpl35a	147	5.81124E-05	0.000716429	0.246833594	2382.711163	2840.289184	chr16	33055665	33061412	promoter
ENSMUSG00000023026	Dip2b	2399	0.000459188	0.004060119	0.248619222	1552.020272	1855.072841	chr15	100038178	100043386	promoter
ENSMUSG00000028760	Eif4g3	3167	0.00052244	0.004502658	0.248730545	1711.017101	2046.63367	chr4	137991396	137997484	promoter
ENSMUSG000000646871	Snord5b	526	6.82109E-05	0.000826454	0.249212492	2256.557387	2692.763383	chr18	74999910	75005689	promoter
ENSMUSG00000071229	Timm8a2	7567	0.000519932	0.004487486	0.2505718	1518.334842	1818.012861	chr14	122053411	122059419	intergenic
ENSMUSG00000029097	Trmt44	3152	0.00121174	0.00896218	0.250768912	1270.759446	1521.653015	chr5	35570763	35575724	promoter
ENSMUSG00000064493	Snora28	876	0.001095919	0.008283683	0.250894254	1326.303416	1589.178186	chr12	111538175	111541654	promoter
ENSMUSG00000008398	Elk3	16687	0.000530908	0.004556285	0.251342042	1558.160266	1864.630497	chr10	93309918	93313057	promoter
ENSMUSG00000023723	Mtrps23	2230	0.000650694	0.005398624	0.251804923	1376.340205	1649.315258	chr11	88202896	88206710	promoter
ENSMUSG00000078733	Aldh16a1	16775	0.000399733	0.003611495	0.252069721	1526.524045	1829.081949	chr7	45153198	45160639	promoter
ENSMUSG00000089371	Mir1938	1021	0.000984494	0.007578027	0.252726055	1380.296389	1656.385766	chr12	40219714	40223218	promoter
ENSMUSG000000043716	Rpl7	1694	0.000237848	0.002366838	0.252843811	1738.883432	2082.403012	chr1	16101908	16106750	promoter
ENSMUSG00000024608	Rps14	53	0.000016835	0.000247294	0.252886013	2600.255394	3110.489078	chr18	60772240	60778667	promoter
ENSMUSG00000030965	Fam173b	2101	0.001090958	0.002858851	0.25289022	1336.853242	1604.823706	chr15	31600581	31603263	promoter
ENSMUSG00000097415	AU020206	3566	9.19128E-05	0.00106581	0.252900381	1958.669779	2345.319865	chr7	75774972	75783352	promoter
ENSMUSG00000028284	Map3k7	4387	0.000255443	0.00250774	0.254001831	1650.922524	1980.361002	chr4	31960740	31966830	promoter
ENSMUSG00000051413	Plagl2	3205	0.000036279	0.000477347	0.254074814	2639.812024	3164.005493	chr2	153231817	153237949	promoter
ENSMUSG00000031816	Mthfsd	14056	0.000750552	0.006064274	0.254257497	1363.696152	1636.623007	chr8	121104301	121110870	promoter
ENSMUSG00000022952	Runx1	1309	0.000247837	0.002447697	0.255301897	1627.412466	1954.038918	chr16	92823924	92828729	promoter
ENSMUSG00000040952	Rps19	723	1.18527E-06	2.48038E-05	0.258030411	4710.314921	5652.258457	chr7	24884597	24894221	promoter
ENSMUSG00000026031	Cflar	323	1.40583E-05	0.000211551	0.258277949	2982.027688	3517.786206	chr1	58726091	58730407	promoter
ENSMUSG00000024101	Wash1	1923	0.00042719	0.003826075	0.260704044	1574.257927	1779.03399	chr17	66106837	66112235	promoter
ENSMUSG000000085154	C130046K22R	2074	0.00060971	0.005460904	0.2609656361	1362.134719	1644.065509	chr11	103694749	103699280	promoter
ENSMUSG000000105780	SNORD77	167	1.22124E-06	2.54754E-05	0.261007426	4511.318676	5426.623458	chr1	161030844	161040311	promoter
ENSMUSG000000202461	Clhc1	2199	0.000298458	0.002849152	0.26189608	1655.507259	1998.617669	chr11	29545502	29549709	promoter
ENSMUSG00000088672	Gm23664	14346	1.15119E-05	0.000177848	0.26189368	2438.270618	2989.31949	chr10	127134574	127142303	promoter
ENSMUSG00000020153	Ndufs7	16741	0.000307389	0.002920274	0.261989604	1668.920182	2014.374921	chr10	80249178	80253210	promoter
ENSMUSG00000025362	Rps26	639	0.000198367	0.00202822	0.262812593	1884.150705	2276.215258	chr10	128624006	128626760	promoter
ENSMUSG000000106407	RP23-328P19.	422	0.000972511	0.007503373	0.263321611	1163.419113	1406.473161	chr3	37310894	37313485	promoter
ENSMUSG00000068040	Tm9sf4	990	0.000205884	0.0002097467	0.263641505	1252.590124	1838.639604	chr2	153159273	153162989	promoter
ENSMUSG000000105820	RP23-403C5.3	960	3.86818E-06	6.88351E-05	0.263879925	3114.008073	3755.32415	chr3	153096980	153914479	promoter
ENSMUSG00000026020	Nop58	1143	0.000146481	0.001571191	0.264148659	1799.452982	2173.422331	chr1	59684983	59689502	promoter
ENSMUSG000000087600	Prnpa1os	2011	0.000049919	0.000626387	0.264402868	2145.062729	2588.565417	chr2	173269789	173278638	promoter
ENSMUSG000000056708	Ier5	141	5.91354E-05	0.000726768	0.264510373	2330.25781	2814.356954	chr1	155094972	155099673	promoter
ENSMUSG000000097576	D930300103Ri	2118	0.000794538	0.006336053	0.265716941	1641.543067	1987.205123	chr16	38450051	38456027	promoter
ENSMUSG00000027784	Ppm1l	1674	0.000788638	0.006302286	0.265828038	1190.760689	1441.873179	chr3	69314724	69319258	promoter
ENSMUSG000000072620	Sifn2	206	3.03934E-07	7.52694E-06	0.266078859	4947.046596	5970.317558	chr11	83058112	83068974	promoter
ENSMUSG00000019143	Hars2	1283	0.000402968	0.003638897	0.267124958	1331.872226	1613.656312	chr18	36781420	36786343	promoter
ENSMUSG000000089989	Flt3l	16707	0.000359938	0.00310992	0.267300576	1447.442517	1755.275979	chr7	45128967	45133080	promoter
ENSMUSG000000090035	Galnt4	4207	0.000658666	0.005453287	0.268133371	1218.324098	1479.414216	chr10	99105503	99110571	promoter
ENSMUSG000000021967	Mrlp57	4002	0.000553765	0.004723653	0.269508973	1204.503047	1463.436169	chr14	57823176	57828205	promoter
ENSMUSG000000025225	Nfkb2	594	1.19035E-05	0.00018261	0.270678564	38					

ENSMUSG00000042364	Snx18	8146	0.000165164	0.001734613	0.274011591	1458.523726	1775.907657	chr13	113611987	113618559	promoter
ENSMUSG00000040747	Cd53	1115	1.90452E-06	3.75064E-05	0.274293379	4109.865844	4994.281282	chr3	106785387	106790707	promoter
ENSMUSG00000086725	A630052C17R	378	0.001310892	0.009598653	0.274318788	1034.867719	1264.641366	chr11	29172946	29175298	promoter
ENSMUSG00000087963	Gm25394	1195	0.000106803	0.00120103	0.274791956	1585.231637	1931.099426	chr13	49680746	49684934	promoter
ENSMUSG00000064666	Snoras52	396	1.71338E-05	0.000251121	0.276070407	2117.666154	2578.8619	chr7	141446561	141449888	promoter
ENSMUSG00000051335	Gfod1	5226	0.000251502	0.002478927	0.276498506	1553.734325	1894.516499	chr13	43299243	43304190	promoter
ENSMUSG00000025326	Ube3a	4331	0.00016496	0.001733997	0.277062948	1387.959426	1693.656943	chr7	59227273	59231614	promoter
ENSMUSG00000093930	Hmgcs1	4361	0.001010671	0.007743242	0.277701053	984.9608148	1205.845332	chr13	119690392	119692940	promoter
ENSMUSG00000034163	Zfc3h1	769	2.58563E-06	4.87725E-05	0.277909801	3374.142323	4111.830664	chr10	115381685	115389901	promoter
ENSMUSG00000030232	Aebp2	14217	1.23587E-07	4.3136E-06	0.279772259	4475.849526	5455.225751	chr6	140623517	140633941	promoter
ENSMUSG00000037944	Ccr7	761	6.0305E-08	1.83494E-06	0.279837235	5747.184918	7001.324352	chr11	99143166	99155078	promoter
ENSMUSG00000104960	Snhg8	155	0.000125505	0.001376784	0.28086268	1674.059993	2050.028528	chr3	123505250	123508374	promoter
ENSMUSG00000061731	Ext1	9164	0.000105586	0.00119136	0.282047865	1429.597025	1750.040763	chr15	53341623	53348191	promoter
ENSMUSG00000031913	Vps4a	2757	0.001184465	0.008804431	0.282636727	950.5439961	1167.322985	chr8	107031311	107033805	promoter
ENSMUSG00000084362	2610024D14R	2042	8.70546E-06	0.000138507	0.282888853	3079.83741	3769.837161	chr11	21091319	21102365	promoter
ENSMUSG00000003382	Etv3	3401	0.000420918	0.003783654	0.284841995	1101.089989	1352.611954	chr3	87524039	87527213	promoter
ENSMUSG0000006998	Psmd2	5196	0.000565907	0.004808506	0.285321985	1062.757742	1307.200425	chr16	20650555	20653963	promoter
ENSMUSG00000031765	Mit1	4610	0.001203223	0.008920319	0.285779912	876.7715096	1080.741166	chr8	94179214	94180918	promoter
ENSMUSG00000046330	Rpl37a	3745	0.000987444	0.00759777	0.287914561	1258.338637	1554.774413	chr1	72711287	72715010	promoter
ENSMUSG00000065782	Gm22680	1744	8.26274E-06	0.000132211	0.288639022	3748.373633	3059.69713	chr19	8723525	8727333	promoter
ENSMUSG00000022948	Setd4	6476	0.001161389	0.008668863	0.28902887	853.4425288	1054.688942	chr16	93602069	93606507	promoter
ENSMUSG00000029777	Gars	650	1.08254E-05	0.00169051	0.290019681	1884.723992	2256.081839	chr6	55036625	55040663	promoter
ENSMUSG00000028211	Trp53inp1	1588	4.29278E-05	0.000551294	0.290145524	1539.090303	1895.182887	chr4	11153940	11158939	promoter
ENSMUSG00000025251	Crebbp	7712	0.000621733	0.005197721	0.290219268	1009.834164	1246.496432	chr16	4211160	4216791	promoter
ENSMUSG00000026495	Fcab2	665	0.000176439	0.001835429	0.291698176	1281.507412	1581.453557	chr1	178404811	178407415	promoter
ENSMUSG00000047514	Tspy1	3435	0.000197364	0.001858011	0.29206703	1195.702359	1476.609478	chr10	34280827	34285629	promoter
ENSMUSG00000061477	Rps7	1924	2.18663E-05	0.000311004	0.292728814	1884.239832	2322.770227	chr12	28631279	28637443	promoter
ENSMUSG00000015869	Prrsap1	5156	0.00115899	0.008405702	0.293449063	816.473574	1011.945887	chr11	116488971	116491280	promoter
ENSMUSG00000026750	Psmb7	2951	0.000273675	0.002653696	0.293519581	1098.271456	1357.544111	chr2	38640775	38645100	promoter
ENSMUSG00000097786	4933429H19R	2676	0.000708095	0.006260181	0.29439522	904.1472135	1121.553063	chr3	30792039	30795467	promoter
ENSMUSG00000040648	Pip5k2	7734	0.00136951	0.009914485	0.296199903	887.2819896	1104.321178	chr1	97767231	97771654	promoter
ENSMUSG00000070697	Utp3	1649	0.00011284	0.002158512	0.29781382	1221.872155	1514.45584	chr5	88554457	88557553	promoter
ENSMUSG00000036781	Rps27l	667	0.000159989	0.001687455	0.298045135	1223.252511	1516.042204	chr9	66944272	66948421	promoter
ENSMUSG00000084746	Gm25292	3862	0.000143086	0.001544715	0.298097004	1207.015837	1497.173555	chr16	84583743	84587419	intergenic
ENSMUSG00000031627	Irf2	56	2.58996E-07	6.55404E-06	0.298561122	2725.779679	3367.042868	chr8	46739817	46743940	promoter
ENSMUSG00000020454	Iif4enif1	1780	2.98609E-07	7.42035E-06	0.298756138	2638.152014	3259.542582	chr11	3201370	3207905	promoter
ENSMUSG00000019820	Utrn	5298	6.62959E-05	0.00080529	0.298806698	1389.040668	1722.696567	chr10	12809611	12814890	intron
ENSMUSG00000020125	Nfkbia	691	5.18959E-07	1.21211E-05	0.29886754	3358.340374	4153.38814	chr12	55485431	55492588	promoter
ENSMUSG00000090069	E430024P14R	957	7.49711E-07	1.67413E-05	0.300197341	4105.520006	5084.3638357	chr17	7875230	7886407	intron
ENSMUSG00000056257	Gm5447	1413	0.000309623	0.002938664	0.300403989	1013.892734	1261.320106	chr13	30972353	30976820	promoter
ENSMUSG000000104970	RP24-374B14.	4056	0.000425604	0.003815339	0.301046127	1093.377171	1362.821061	chr5	110229764	110233443	promoter
ENSMUSG00000061882	Ccdc62	3763	0.001010577	0.007743242	0.301085601	833.8768098	1039.499446	chr5	123928899	123932848	promoter
ENSMUSG00000021737	Psmd6	3833	0.000783144	0.006273106	0.301474969	826.9722077	1031.035331	chr14	14118054	14120952	promoter
ENSMUSG00000035901	Dennd5a	3469	0.001359053	0.009856888	0.301567751	778.739208	971.972059	chr7	10959426	109961431	promoter
ENSMUSG00000025261	Huwe1	5798	0.001274934	0.009315334	0.302478941	762.5659211	953.0149225	chrX	151803353	151806364	promoter
ENSMUSG000000100389	Rbm6-ps2	2715	0.000418687	0.003765315	0.303297786	1221.511412	1525.710257	chr1	144205056	144208362	intergenic
ENSMUSG00000007308	Gpr174	17169	0.000149659	0.001597304	0.303632637	1113.751106	1387.753043	chrX	107253544	107261044	promoter
ENSMUSG000000107255	CH25-19422..	821	0.000134853	0.001469519	0.304596224	1115.143309	1390.249787	chr5	74093095	74096388	promoter
ENSMUSG00000021262	Evl	2988	1.86041E-07	4.89644E-06	0.304848904	3329.821802	4135.198145	chr12	108629615	108639330	promoter
ENSMUSG00000028270	Gbp2	4878	0.000824465	0.006535053	0.305087762	966.2848252	1210.213236	chr3	142619918	142622403	promoter
ENSMUSG00000051768	Xrcc1	6222	0.000809018	0.006960682	0.305115251	872.3744798	1092.696101	chr7	24547172	24550228	promoter
ENSMUSG00000020114	Cand1	1001	0.00014654	0.001571191	0.305137368	1251.726521	1560.850012	chr10	119237287	119240104	promoter
ENSMUSG00000044857	Lemd2	1974	0.001384218	0.000991609	0.305835963	802.4373188	1004.797776	chr17	27203274	27205092	promoter
ENSMUSG00000044997	E130304I02Ril	442	0.000537995	0.004611086	0.307329007	900.225157	1127.861722	chr7	35800466	35803227	promoter
ENSMUSG000000105913	mmu-mir-512	34	1.815E-08	6.24417E-07	0.307709319	3510.067173	4362.258456	chr7	45124593	45128769	promoter
ENSMUSG00000035530	Eif1	2670	0.000706788	0.005772314	0.308171266	844.4241418	1059.473903	chr11	100319970	100321491	promoter
ENSMUSG00000086600	C03005K06R	5722	0.000105641	0.00119136	0.308648464	1126.654927	1408.516051	chr18	50051380	50056457	promoter
ENSMUSG00000036339	Tmem260	3834	0.001288323	0.009392277	0.308677671	810.2487143	1018.7956	chr14	48446113	48448250	promoter
ENSMUSG000000040006	Ginn1	4594	8.03144E-05	0.000952037	0.309002074	1245.337649	1557.704484	chr10	7790832	7794754	promoter
ENSMUSG00000003153	Slc2a3	7989	0.000960586	0.00743756	0.309210699	822.8742924	1032.448632	chr6	122739451	122743643	promoter
ENSMUSG00000035247	Hectd1	360	2.92893E-06	5.39607E-05	0.309681995	2494.190637	3113.499675	chr12	51826532	51823298	promoter
ENSMUSG00000030157	Clec2d	321	7.79597E-06	0.000125763	0.310527438	2120.060906	2649.659265	chr6	129180654	129183380	promoter
ENSMUSG00000030432	Rpl28	211	7.61943E-09	2.84445E-07	0.313741789	3533.023566	4404.141531	chr7	4786449	4798017	promoter
ENSMUSG00000043505	Gimap5	14222	1.54702E-06	3.12142E-05	0.31226212	2676.854453	3346.203593	chr6	48743768	48747728	promoter
ENSMUSG000000020898	Ctc1	3159	1.55214E-05	0.000232028	0.312405407	1443.474486	1805.774465	chr11	69013524	69018616	promoter
ENSMUSG000000030674	Rpl41	306	7.92874E-07	1.75223E-05	0.314588712	2039.596201	2550.694522	chr10	128542974	128549156	promoter
ENSMUSG000000039067	Psmd7	2606	0.000271978	0.002638535	0.314697383	1034.669578	1302.572258	chr8	107585706	107588708	promoter
ENSMUSG00000020132	Rab21	326	2.13261E-06	4.15006E-05	0.31491078	1972.518329	2468.7246	chr10			

ENSMUSG000000031578	Mak16	2631	0.0000347	0.000461464	0.320634379	1214.520079	1529.857367	chr8	31165615	31170923	promoter
ENSMUSG000000036155	Mgat5	8812	0.000925378	0.007193205	0.320935642	733.0395803	929.43491	chr1	127203891	127207687	promoter
ENSMUSG000000037742	Eef1a1	21	2.77174E-06	5.16929E-05	0.321745531	1819.425418	2288.884311	chr9	78478747	78481740	promoter
ENSMUSG000000068206	Pick1	5236	0.000398052	0.003602757	0.321848849	903.3480224	1142.132076	chr15	79227845	79232602	promoter
ENSMUSG000000038467	Chmp4b	61	1.23186E-05	0.0001881	0.322796375	1466.321865	1848.084194	chr2	154656011	154658027	promoter
ENSMUSG000000024251	Thada	16834	0.000177642	0.001843628	0.323318093	940.7762971	1191.393652	chr17	84420001	84425266	intron
ENSMUSG000000027981	Rnpc3	1510	0.000592468	0.004995436	0.323426847	723.5368677	917.6285062	chr3	113628535	113631628	promoter
ENSMUSG000000036819	Jmjd4	8289	0.001324888	0.009633906	0.323552853	618.7041075	787.2473902	chr11	59449791	59452434	promoter
ENSMUSG000000052673	Gm9887	58	2.10003E-08	7.06541E-07	0.323574696	3040.619241	3824.11409	chr12	69369851	69374962	promoter
ENSMUSG00000040822	1700123020R	1995	8.40035E-05	0.000987454	0.324569595	1165.554097	1476.155622	chr14	54682209	54686619	promoter
ENSMUSG00000037993	Dhx38	4962	0.000215927	0.002182853	0.324663193	1040.448375	1320.395597	chr14	109562193	109565633	promoter
ENSMUSG000000085156	Gm11974	515	4.68224E-08	1.46742E-06	0.324743963	2535.849107	3192.835253	chr11	6523259	6528784	promoter
ENSMUSG000000030811	Fbxl19	6799	1.01722E-05	0.000159399	0.324753133	1448.664079	1828.662223	chr7	127744235	127752649	promoter
ENSMUSG000000031577	Tti2	14471	0.000440126	0.00392588	0.325043813	880.2342463	1116.483307	chr8	31150362	31153776	promoter
ENSMUSG000000084978	Gm11655	10126	0.000156136	0.001652124	0.325498424	1038.924878	1316.500488	chr11	108175980	108182192	promoter
ENSMUSG00000040220	Gas8	4815	0.000686934	0.005639958	0.325571889	902.3810117	1147.711681	chr8	123518886	123522581	promoter
ENSMUSG000000073236	2500004C02R	1779	3.94454E-08	1.25014E-06	0.325586765	2961.018176	3732.077998	chr2	153342259	153351951	promoter
ENSMUSG000000037759	Ptger2	1147	6.84067E-08	0.000112611	0.325604561	1831.175934	2313.937622	chr14	44987939	44990582	promoter
ENSMUSG000000029587	Zfp12	6836	0.000441691	0.003931327	0.325650031	752.3951323	955.4148708	chr7	143234264	143238027	promoter
ENSMUSG00000028362	Tnfsf8	11207	0.000464190	0.004093239	0.325762967	755.0839611	959.6955764	chr4	63842529	63847824	intron
ENSMUSG00000105060	snoZ196	715	6.34613E-08	1.92168E-06	0.326687441	2443.138042	3079.296168	chr1	63174683	63179075	promoter
ENSMUSG000000022792	Yars2	3306	0.000692343	0.005674911	0.327257595	849.4915618	1081.45128	chr16	16302158	16305512	promoter
ENSMUSG000000024862	Klc2	5239	7.10892E-05	0.000857635	0.327319437	1021.482296	1295.59988	chr19	5115472	5120073	promoter
ENSMUSG000000073733	Rsg1	10404	0.000382247	0.003475664	0.327732478	765.8200815	974.220854	chr4	141210573	141214716	promoter
ENSMUSG000000027663	Zmat3	6114	9.06065E-05	0.00105314	0.328143269	968.2871031	1228.502698	chr3	32362386	32366980	promoter
ENSMUSG00000041147	Brcz2	4164	0.000159388	0.001682023	0.328146974	959.1702362	1219.621027	chr5	150520977	150524940	promoter
ENSMUSG00000020387	Jade2	17211	3.69653E-05	0.000483862	0.328647307	1156.282242	1465.181997	chr11	51840680	51850196	intron
ENSMUSG000000029265	Dr1	780	3.97568E-06	7.04156E-05	0.328835365	1645.857598	2084.226442	chr5	108267865	108272485	promoter
ENSMUSG000000051335	Gfod1	10762	0.000772354	0.006209383	0.328879852	665.6730301	848.8590945	chr13	43250385	43254871	intron
ENSMUSG000000042396	Rbm7	3518	2.34688E-05	0.000329986	0.329062666	1172.248712	1486.338863	chr9	48492699	48496639	promoter
ENSMUSG00000037805	Ddias	3336	0.000191225	0.001966415	0.329362394	857.9300969	1090.703612	chr7	92872390	92875091	promoter
ENSMUSG000000027367	Stard7	228	1.70795E-06	3.40432E-05	0.329856486	1692.22547	2140.900518	chr2	127308651	127314537	intergenic
ENSMUSG00000044250	Pced1b	10132	0.001054348	0.008031052	0.33017017	632.581568	809.1402379	chr15	97457332	97461029	intergenic
ENSMUSG000000075266	Cenpw	6094	0.00117932	0.008777395	0.330467181	636.3448299	813.7398689	chr10	30198113	30200884	promoter
ENSMUSG000000020546	Stxbp4	4285	5.52597E-05	0.000685116	0.330535957	1023.870472	1301.060826	chr11	90635827	90640069	promoter
ENSMUSG000000037805	Rpl10a	43	7.62453E-08	2.24155E-06	0.331344441	2917.317657	3690.569842	chr17	28324821	28333154	promoter
ENSMUSG000000072621	Sifn10-ps	392	0.000276729	0.002676726	0.33153403	781.5765641	996.8536873	chr11	83039508	83040486	promoter
ENSMUSG000000021076	Actr10	3748	0.000580914	0.004916938	0.331741734	793.0606833	1014.83649	chr12	70936937	70939977	promoter
ENSMUSG000000104594	AC073553.1	9787	0.000841316	0.006648298	0.332152521	738.2528654	945.968947	chr12	113421984	113426989	promoter
ENSMUSG000000032238	Rora	4692	8.58255E-05	0.000105275	0.332328902	950.159561	1209.843911	chr9	69288781	69292101	promoter
ENSMUSG000000078713	Tomm5	3686	0.000243098	0.002408729	0.33405938	820.6056175	1049.105332	chr4	45105762	45108096	promoter
ENSMUSG000000059288	Cdyl	16734	0.00003284	0.000440691	0.334766536	1145.206251	1457.71295	chr13	35739671	35743075	promoter
ENSMUSG000000041180	Hectd2	3148	0.000104681	0.001182563	0.335709698	1021.907248	1292.95327	chr19	36552905	36556979	promoter
ENSMUSG000000036363	Clec18a	1350	1.81581E-07	4.81115E-06	0.336776196	2057.860256	2615.859123	chr8	111056309	111062886	intron
ENSMUSG000000051413	Plagl2	196	3.65442E-10	1.82379E-08	0.337004385	4834.398633	6136.518417	chr2	153238163	153244009	promoter
ENSMUSG000000032598	Nckipsd	6638	0.000486961	0.004253195	0.337559971	719.620029	922.30307	chr9	108808405	108811293	promoter
ENSMUSG000000092819	Gm23639	3003	9.91983E-06	0.000156065	0.339877699	1380.285954	1765.146563	chr18	33794034	33798049	promoter
ENSMUSG000000051256	Jagn1	3008	0.000681575	0.000560621	0.339956543	721.6110905	934.8985249	chr1	113441443	113443971	promoter
ENSMUSG000000101320	Gm28529	84	1.07797E-06	2.28704E-05	0.340462417	1838.828535	2348.184601	chr18	6487494	6492954	promoter
ENSMUSG000000056820	Tsnax	3425	0.001145226	0.008577445	0.34095819	569.7708424	735.3882687	chr8	125012252	125014786	promoter
ENSMUSG000000015341	Golga7	7329	0.000313796	0.002965416	0.34090979	723.2259069	930.0631637	chr8	23254155	23258166	promoter
ENSMUSG0000000404043	Stat5a	16685	8.17139E-08	3.26886E-06	0.342333335	1983.645513	2530.75603	chr11	100859176	100861947	promoter
ENSMUSG000000037944	Ccr7	14293	0.000177263	0.001841394	0.343410472	779.2448506	1002.855687	chr11	99155274	99158151	promoter
ENSMUSG000000105911	snopsi28S-332	347	7.50737E-07	1.67413E-05	0.345157642	1749.189143	2237.433984	chr4	132308143	132311632	promoter
ENSMUSG000000030209	Lrig1	12234	1.93742E-08	0.000030878	0.346018451	1384.308984	1774.555688	chr6	94660658	94670305	intron
ENSMUSG000000047712	Ust	7344	0.000222639	0.002241516	0.346843853	802.4832932	1036.384545	chr10	8516067	8520132	promoter
ENSMUSG000000082353	Vmn1r-ps1	10650	0.000482806	0.004226172	0.34732669	620.4243349	802.5235851	chr2	174598719	174603573	intergenic
ENSMUSG000000029430	Ran	16746	0.001000473	0.007677046	0.347507265	556.9011492	723.1130739	chr5	129017402	129019998	promoter
ENSMUSG000000032109	Nirx1	5381	0.000177695	0.001843628	0.347540242	807.3252789	1043.115599	chr9	44264680	44268578	promoter
ENSMUSG0000000041607	Mbp	14327	5.47301E-11	3.192E-09	0.347631078	3724.799031	4760.537648	chr18	82470939	82483972	promoter
ENSMUSG000000009569	Mkl2	6068	0.001061354	0.008065752	0.347637356	539.9216944	699.9773197	chr16	13255535	13258649	promoter
ENSMUSG0000000102258	Gm38257	1320	1.55547E-06	0.000031292	0.347911906	1618.640689	2078.900426	chr2	15051081	15059281	promoter
ENSMUSG000000024560	Cxxc1	5076	0.000082496	0.000972633	0.347996255	919.2291715	1184.355939	chr18	74216135	74220522	promoter
ENSMUSG000000018919	Tm4sf5	10758	8.46523E-05	0.000994488	0.348914807	845.9999148	1091.701191	chr11	70507689	70512803	promoter
ENSMUSG000000007659	Bcl2l1	9174	0.000219653	0.002214841	0.349956551	717.4077642	928.6117291	chr2	152823342	152852757	intron
ENSMUSG000000042348	Arl15	6811	0.000641218	0.005328975	0.350186501	579.329965	752.190831	chr13	113793817	113796004	promoter
ENSMUSG000000037138	Aff3	10084	0.000676887	0.005571387	0.350812008	627.71372	814.245459	chr1	38625701	38629625	promoter
ENSMUSG000000089774	Slc5a3	4259	1.62446E-06	3.25106E-05	0.350837591						

ENSMUSG000000026358	Rgs1	6814	0.000622863	0.005204957	0.357455383	587.9102307	768.5640707	chr1	144236338	144239033	intergenic
ENSMUSG000000054720	Lrc8c	333	7.01281E-09	2.64834E-07	0.358377342	2391.516128	3082.960886	chr5	105515993	105522800	promoter
ENSMUSG000000008496	Pou2f2	6740	1.62008E-05	0.000239226	0.359417286	1074.659014	1393.448384	chr7	25118631	25122960	promoter
ENSMUSG00000003575	Crtc1	9387	9.03172E-05	0.001051018	0.359684033	826.5024522	1076.187931	chr8	70435213	70440436	promoter
ENSMUSG000000038084	Opa1	5026	0.00045299	0.004016996	0.360417128	614.5104361	804.4806098	chr16	29578878	29581912	promoter
ENSMUSG00000019883	Echdc1	9329	0.00120019	0.008904533	0.361133067	504.3055961	661.968826	chr10	29311921	29315216	promoter
ENSMUSG00000002984	Tomm40	8411	0.000963613	0.007449294	0.36159365	600.8979619	787.9711055	chr7	19715944	19720134	promoter
ENSMUSG00000003873	Bax	3641	9.71452E-08	2.76338E-06	0.362076357	1653.655736	2141.505706	chr7	45463305	45468618	promoter
ENSMUSG000000027502	Rtdlc1	7436	0.00011107	0.001240525	0.362090877	722.5409466	943.0647432	chr2	172435881	172440391	promoter
ENSMUSG000000027475	Kif3b	637	3.73853E-07	9.03182E-06	0.362677879	1447.900426	1877.70434	chr2	153287628	153292455	promoter
ENSMUSG00000015501	Hivep2	5358	1.42686E-05	0.0002141	0.364159171	955.5814224	1244.85007	chr10	14086487	14089889	intron
ENSMUSG00000049717	Lig4	8070	0.000140362	0.001520306	0.364278205	785.1298391	1025.611184	chr8	9976673	9980468	promoter
ENSMUSG00000000563	Atpf5f1	14268	2.10324E-06	4.10506E-05	0.364926887	1191.746174	1550.508643	chr3	105956105	105959259	promoter
ENSMUSG000000022820	Ndufb4	5247	0.001269817	0.009291723	0.365922666	465.6453243	615.0826649	chr16	37652197	37654340	promoter
ENSMUSG000000025278	Flnb	9154	0.000545506	0.0046714	0.367460187	537.6805193	707.5792854	chr14	7818040	7820996	promoter
ENSMUSG00000008496	Pou2f2	9901	0.001262046	0.009252033	0.367571788	628.7145109	829.4493904	chr7	25130992	25133215	promoter
ENSMUSG000000020644	Id2	2013	2.46589E-06	4.67894E-05	0.368105717	1144.527919	1492.967782	chr12	25094049	25096133	promoter
ENSMUSG000000025202	Scd3	9962	0.000459294	0.004060119	0.368172289	557.3879688	735.008015	chr19	44251411	44254338	intergenic
ENSMUSG000000022636	Alcam	3887	6.00605E-07	1.38153E-05	0.368415088	1411.203086	1837.989487	chr16	52448738	52453124	promoter
ENSMUSG00000007659	Bcl2l1	928	1.06096E-13	1.00551E-11	0.368617101	4456.275768	5775.842928	chr2	152825980	152834426	promoter
ENSMUSG000000027677	Ttc14	3317	0.000103048	0.001168133	0.369749695	864.3151619	1136.364471	chr3	33798868	33802847	promoter
ENSMUSG000000016498	Pcd1lg2	1736	1.02114E-06	2.19039E-05	0.369932894	1327.741593	1733.794191	chr19	29454436	29457600	intron
ENSMUSG000000061244	Exoc5	2989	2.96908E-06	5.45475E-05	0.370232776	1153.142313	1507.863719	chr14	49063127	49068163	promoter
ENSMUSG000000021549	Rasal1	14281	2.24647E-05	0.000318595	0.37091135	879.8156831	1152.352115	chr13	85286723	85289396	promoter
ENSMUSG000000022241	Tars	3490	3.81655E-05	0.000497919	0.370956499	808.3014359	1061.0848	chr15	11396999	11399659	promoter
ENSMUSG000000034761	Map4k5	5497	0.001159357	0.00865697	0.371021538	441.5801909	584.8969313	chr12	69891633	69893504	promoter
ENSMUSG000000084600	Gm22201	8056	0.000333964	0.003111267	0.371295071	623.8425077	822.5343409	chr17	32386824	32389405	promoter
ENSMUSG000000032939	Nup93	7586	0.001019652	0.00780295	0.371366956	508.7775108	675.3138635	chr8	94214578	94216930	promoter
ENSMUSG00000030199	Etv6	12133	0.001270804	0.009295492	0.372002911	529.4913171	702.9564564	chr6	134258556	134262047	intron
ENSMUSG000000036078	Sigmar1	8502	0.00111084	0.008379036	0.372828743	455.8027405	604.5519627	chr4	41754749	41757935	promoter
ENSMUSG000000097775	4931440J10Ri	12	2.10976E-07	5.47233E-06	0.373074976	1576.020839	2058.764469	chr14	62758509	62761146	promoter
ENSMUSG000000074577	Mprzs2	5072	0.000036298	0.000477437	0.373232781	806.6205545	1060.741342	chr2	28467793	28470904	promoter
ENSMUSG000000021715	Cwc27	11724	0.001272286	0.009302883	0.373252009	478.6107736	635.0579563	chr13	104608801	104611686	intergenic
ENSMUSG000000090669	E430024P14R	14421	1.94262E-05	0.00028158	0.374018723	872.7077225	1146.80397	chr17	7886619	7889150	intron
ENSMUSG000000032000	Birc3	1773	1.61507E-03	3.23556E-05	0.374236251	1445.13803	1893.100529	chr9	7870625	7872948	promoter
ENSMUSG000000026767	Fam188a	5078	4.79315E-05	0.000604913	0.37436026	758.5191981	998.5381828	chr2	12417698	12420050	promoter
ENSMUSG00000001280	Sp1	1130	0.0001191	0.001319001	0.374925565	660.9584109	871.6991213	chr15	102403672	102405606	promoter
ENSMUSG000000018433	Nol11	1344	4.26881E-05	0.000549289	0.374949877	882.4754215	1160.653263	chr11	107186615	107189257	promoter
ENSMUSG000000032480	Dhx30	5370	0.000251715	0.002479786	0.375297749	585.4761327	774.1463452	chr9	11008965	110101921	promoter
ENSMUSG000000015314	Slamf6	18443	0.001245572	0.009153538	0.375398817	419.0779008	558.4017833	chr1	171963237	171967857	intergenic
ENSMUSG000000039509	Nup133	7573	0.000286624	0.002753743	0.375791586	599.5740158	792.8691331	chr8	123946839	123949243	promoter
ENSMUSG000000074797	Itpa	3736	0.000210002	0.002136108	0.375868554	584.299135	772.9170398	chr2	130667005	130668657	promoter
ENSMUSG000000031605	Kihl2	6295	0.000146164	0.001570204	0.376072449	795.679665	1050.7799425	chr8	64847414	64851313	promoter
ENSMUSG000000085965	2310016D23R	9054	6.0366E-06	0.000100847	0.376205698	1065.786262	1401.726334	chr1	60772085	60777006	promoter
ENSMUSG000000026358	Rgs1	14306	0.000458534	0.004058863	0.37673849	3912.442877	5196.480541	chr1	144239553	144249124	promoter
ENSMUSG000000020108	Polr2h	8564	0.000912909	0.007110303	0.377557717	443.8896224	591.4045215	chr16	20717844	20719139	promoter
ENSMUSG000000036678	Aaas	3702	2.17972E-06	4.23252E-05	0.377561651	1225.080341	1607.877776	chr15	102347863	102352360	promoter
ENSMUSG000000045438	Cox19	3984	0.00007961	0.000945932	0.379052388	670.1895086	886.6195918	chr5	139343646	139345163	promoter
ENSMUSG000000027763	Mbnl1	9410	3.29969E-06	5.97856E-05	0.380658504	1086.143133	1430.879024	chr3	60525847	60531628	promoter
ENSMUSG000000045391	Snord52	4007	7.53333E-05	0.000900028	0.381501781	710.1462267	940.9973212	chr10	63243864	63246221	promoter
ENSMUSG000000035268	Ptkig	6766	0.000287358	0.002757884	0.381950562	610.1015599	812.4887	chr2	163657207	163660642	promoter
ENSMUSG000000097534	Gm16675	402	3.54485E-07	8.62712E-06	0.383780724	1347.107761	1774.783493	chr8	46736628	46739533	promoter
ENSMUSG000000036208	BC027231	2958	1.44573E-05	0.000216071	0.384724219	890.9888414	1181.552356	chr16	44722831	44726206	promoter
ENSMUSG000000093009	Snord52	35	7.30136E-11	4.12412E-09	0.384845213	2433.103946	3195.751724	chr17	34949570	34954159	promoter
ENSMUSG000000022346	Wdr75	5860	7.31056E-05	0.000877218	0.385392433	672.4989402	894.9466074	chr1	45794883	45798274	promoter
ENSMUSG000000022346	Myc	1790	2.57913E-13	3.21102E-11	0.385394024	4161.790679	5463.94529	chr15	61983636	61991379	promoter
ENSMUSG000000034729	Mprzs10	6693	3.49464E-05	0.000463905	0.38570658	722.0882552	958.9446591	chr17	47368910	47371528	promoter
ENSMUSG000000022545	Erc4c	5704	0.00010297	0.001168133	0.385737475	651.4334164	867.1226884	chr16	13108272	13111262	promoter
ENSMUSG0000000055882	Abhd16b	7000	0.000285732	0.00027474631	0.387719649	578.4520819	772.5490489	chr2	181482552	181485606	intergenic
ENSMUSG000000105656	Ptpc3-434H17.	2984	0.000018852	0.000274468	0.388654687	1062.781435	1415.0809695	chr5	3543088	3547457	promoter
ENSMUSG000000030029	Lrig1	6508	0.000322351	0.003030286	0.389150838	508.2959059	680.765212	chr6	94681767	94683788	promoter
ENSMUSG000000021895	Arhgef3	8273	5.21025E-07	0.000012155	0.389166055	1451.014267	1923.151333	chr14	27349576	27355076	intron
ENSMUSG0000000107946	RP24-127M20	3571	3.05024E-07	7.35302E-06	0.389826421	1217.423933	1612.377941	chr6	128835135	128840449	intergenic
ENSMUSG000000077421	Gm24283	1506	1.52202E-08	3.55778E-07	0.390329893	1659.626045	2192.466713	chr8	121827581	121832932	promoter
ENSMUSG000000034190	Chmp7	4374	7.70768E-07	1.72504E-05	0.391176885	1361.880168	1807.474949	chr14	69727351	69732598	promoter
ENSMUSG000000097125	Gm26885	172	4.35817E-13	3.75164E-11	0.391453933	4282.576652	5646.071127	chr17	29490758	29494260	promoter
ENSMUSG000000018425	Dhx40	16272	0.000461671	0.004073824	0.393161924	448.406101	604.3189018	chr11	86816471	86819976	intergenic
ENSMUSG000000004093	Bmf	8910	0.000997252	0.0007632655	0.3948132						

ENSMUSG000000039842	Mcp1	6554	0.00010952	0.001225987	0.403121768	579.8954767	782.7704228	chr8	18594650	18597829	promoter
ENSMUSG00000004748	Mtfp1	5262	1.15577E-05	0.000178416	0.404303643	737.8276737	992.9668399	chr11	4096892	4100228	promoter
ENSMUSG000000084746	Gm25292	10558	0.000233769	0.002330947	0.404675319	468.8994847	636.4467244	chr16	84618561	84621459	promoter
ENSMUSG000000053706	B430305J03Ri	4245	2.65999E-08	8.74647E-07	0.40493099	1415.301002	1892.442149	chr3	61363987	61368586	promoter
ENSMUSG000000021431	Snrnp48	3126	0.000240248	0.0023847	0.40623113	513.3110534	698.9197434	chr13	38204948	38206459	promoter
ENSMUSG000000033450	Tagap	817	5.72229E-14	5.55682E-12	0.406863908	4852.028919	6471.294215	chr17	7923359	7931989	promoter
ENSMUSG000000045519	Zfp560	9010	0.001182588	0.008797114	0.407970138	335.3552282	461.1937999	chr9	20383653	20385912	promoter
ENSMUSG000000035356	Nfkbiz	7008	3.89732E-05	0.00050745	0.408009758	812.3206592	1101.38151	chr16	55836157	55839323	promoter
ENSMUSG000000031782	Coq9	600	3.52586E-09	1.40415E-07	0.408028085	1562.179489	2091.579076	chr8	94836574	94839552	promoter
ENSMUSG000000021895	Arhgef3	19470	0.000990848	0.007620983	0.409267014	388.2617422	534.6145774	chr14	27370510	27374581	intron
ENSMUSG000000065899	Gm24523	4865	9.87586E-08	2.80518E-06	0.409428434	1868.08989	2512.576966	chr15	34439538	34445088	promoter
ENSMUSG000000034653	Ythdc2	6905	0.000415464	0.003741457	0.409457376	410.424161	560.7267989	chr18	44827180	44829826	promoter
ENSMUSG000000041609	Ccdc64	2243	5.80174E-14	5.60636E-12	0.412371202	3052.725282	4086.036033	chr5	115712365	115720525	promoter
ENSMUSG00000013663	Pten	8811	0.000858214	0.006745604	0.412479127	349.017484	480.7029696	chr19	32755244	32757313	promoter
ENSMUSG00000007850	Hmrph1	882	3.87394E-07	9.34725E-06	0.416253382	1055.422731	1422.797336	chr11	50377752	50381052	promoter
ENSMUSG00000075254	Heg1	2371	2.24904E-10	1.15758E-08	0.413832772	1953.656046	2625.147009	chr16	33683951	33688824	promoter
ENSMUSG000000023764	Sf11	16107	4.79792E-05	0.000605127	0.414340422	685.7990428	934.5387965	chr11	3191786	3193363	promoter
ENSMUSG000000073131	Vma21	9307	0.000582688	0.004927772	0.414615948	403.6665073	555.2522523	chrX	71815788	71818017	promoter
ENSMUSG000000075585	G330403L08Ri	10669	5.59646E-05	0.00692114	0.415392056	594.2085645	808.9562425	chr5	138992266	138996885	promoter
ENSMUSG000000097213	Gm26745	7973	0.001000958	0.007677778	0.415925971	373.1783735	516.2392515	chr5	123058158	123059943	intron
ENSMUSG000000052144	Ppp4r2	7244	0.000027287	0.000373808	0.416971468	653.7703477	889.4979282	chr6	100833130	100836469	promoter
ENSMUSG000000058748	Zfp958	7803	3.83152E-05	0.000499542	0.418006571	548.0891802	783.6549355	chr8	4612525	4615676	promoter
ENSMUSG000000025323	Spr4	17187	0.001015156	0.007715515	0.418435501	343.9184298	477.7265023	chr12	118373709	118376525	intergenic
ENSMUSG000000072704	Smin10l1	2508	0.000465421	0.004095913	0.418647553	380.6039234	525.4998453	chr6	133104801	133106522	promoter
ENSMUSG000000034674	Tdg	4709	3.29295E-08	1.05895E-06	0.419214241	1279.079943	1730.433462	chr10	82628621	82632856	promoter
ENSMUSG00000001467	Cyp51	4649	2.81032E-06	5.22148E-05	0.421006873	791.9505313	1077.666568	chr5	4102034	4106043	promoter
ENSMUSG000000024544	Ldlrad4	11285	0.00022973	0.002297645	0.421412674	511.6287614	703.4335098	chr18	67931956	67935083	promoter
ENSMUSG000000019919	Gm17072	10637	0.000759487	0.00611842	0.423626167	395.975971	552.3016523	chr8	81823491	81826299	promoter
ENSMUSG000000030649	Anapc15	2167	0.000269035	0.002617712	0.423704314	410.9844548	567.6405137	chr7	101894161	101896638	promoter
ENSMUSG00000005687	Bcas2	8801	0.00050097	0.004356252	0.424312504	359.4649254	498.57404	chr3	103171761	103172995	promoter
ENSMUSG000000021262	Evl	4606	1.02446E-10	5.6098E-09	0.424942285	1875.360452	2539.381442	chr12	108639545	108646254	intron
ENSMUSG000000086851	A430108G06R	10951	0.001378797	0.00959774	0.42584884	305.0533889	427.4537454	chr11	53566801	53569588	promoter
ENSMUSG000000020463	Smek2	11499	0.000176303	0.001834989	0.425876042	444.7897875	615.3770576	chr11	29170552	29172763	promoter
ENSMUSG000000097493	9930014A18R	5757	6.27123E-07	1.43465E-05	0.427005919	924.0291112	1261.133441	chr15	60821510	60824936	promoter
ENSMUSG000000033318	Gstt2	16760	1.7130130	0.920915E-09	0.427057606	1810.263987	2456.783266	chr10	75829791	75835750	promoter
ENSMUSG000000087366	Junos	3424	5.21928E-05	0.00650364	0.427119058	576.8119572	795.5362721	chr4	95052463	95054545	promoter
ENSMUSG000000041782	Lad1	10389	8.35315E-05	0.000982492	0.428319589	588.791921	811.2444589	chr1	135817567	135821537	promoter
ENSMUSG000000084746	Gm25292	11501	0.000580137	0.004912476	0.428690199	354.3658712	494.6394618	chr16	84580990	84583367	intergenic
ENSMUSG000000034765	Dusp5	1637	9.8788E-07	2.12848E-07	0.430830286	480.1290505	1154.148342	chr19	53537019	53539650	intron
ENSMUSG000000024083	Pja2	6405	0.000285161	0.002745728	0.431730142	377.1793043	525.1182534	chr17	64330269	64331887	promoter
ENSMUSG000000062376	2010012005R	4440	0.000429547	0.003843693	0.43275622	353.5339626	494.6749263	chr19	46689357	46691135	promoter
ENSMUSG000000045031	Cetn4	7110	2.29409E-06	4.41204E-05	0.433261944	872.3915439	1200.459319	chr3	37299980	37304319	intergenic
ENSMUSG000000030613	Ccdc90b	9566	0.000258853	0.002537426	0.434114899	400.0672578	558.5489797	chr7	92560630	92563471	promoter
ENSMUSG000000031758	Cdyl2	11546	0.000500515	0.004354218	0.43412717	380.400565	534.3433828	chr8	116632732	116635384	intron
ENSMUSG000000041607	Mbp	16932	1.08663E-08	3.9449E-07	0.435048067	1204.995085	1648.804618	chr18	82503450	82508741	intron
ENSMUSG000000039298	Cdk5rap2	9004	0.001231382	0.009071003	0.435066775	301.7598825	427.4046799	chr4	70408721	70410424	promoter
ENSMUSG000000058869	Gm4832	8429	0.000107828	0.001209793	0.43555142	465.0679664	647.1000903	chr17	88112605	88115383	intergenic
ENSMUSG00000002083	Bbc3	10766	1.77092E-05	0.000258977	0.435618771	569.029472	786.9393965	chr7	16297125	16300467	intergenic
ENSMUSG000000020704	Tnfrsf10b	8831	0.0002070997	0.002634314	0.435762269	377.4796473	527.7867271	chr14	69766951	69769312	promoter
ENSMUSG000000055833	1700034H15R	6867	2.65511E-05	0.000365759	0.436904576	538.9257733	746.5336237	chr1	191906773	191909092	promoter
ENSMUSG000000030844	Rgs10	12499	0.000280572	0.002708577	0.437005919	381.9397158	535.4377582	chr7	128372896	128376191	promoter
ENSMUSG000000022742	Cpxo	7147	5.37036E-05	0.000667924	0.437450501	484.9275821	674.1226918	chr16	58668974	58671931	promoter
ENSMUSG000000054387	Mdm4	11782	7.21582E-06	0.000117753	0.437501403	646.1532856	893.568771	chr1	133017931	133021505	promoter
ENSMUSG000000104960	Snhg8	379	0.000005482	9.29193E-05	0.437597576	650.980725	899.2395794	chr3	123508568	123509648	promoter
ENSMUSG000000025041	Ntsc2	17198	0.000617249	0.005171201	0.437830398	318.8915034	449.8535179	chr19	46925134	46928917	intron
ENSMUSG000000030850	Ate1	1912	1.89694E-08	4.68048E-07	0.438303528	1196.822947	1642.610071	chr7	130517018	130521715	promoter
ENSMUSG000000044340	Phlp1p	9196	0.000181729	0.001877584	0.438326624	404.6913388	566.5202708	chr1	106171681	106174265	promoter
ENSMUSG000000016982	Pom121l2	17283	0.000221209	0.002228251	0.438656859	384.565326	538.0585011	chr13	21980687	21984511	promoter
ENSMUSG0000000098234	Shgh6	318	4.01774E-11	2.42949E-09	0.439030547	1706.352263	2333.253199	chr19	9941059	9944767	promoter
ENSMUSG000000096655	1700065D16R	5607	3.0088E-06	5.50805E-05	0.439770707	689.5623047	952.9917244	chr9	95856630	95859458	promoter
ENSMUSG000000058638	Zfp110	7325	0.000449212	0.003988879	0.439897994	342.3162404	481.710459	chr7	12833752	12835837	promoter
ENSMUSG000000026073	I11r2	18495	0.000892011	0.006969569	0.440799164	286.5689115	405.6344958	chr1	40105525	40109381	intron
ENSMUSG000000028364	Tnc	11728	0.001213992	0.008973164	0.44147103	264.5363769	376.7420688	chr4	63935663	63937064	intergenic
ENSMUSG000000105102	RP24-81E4.4	17055	0.001286217	0.0009380387	0.441624425	270.4791861	386.0530626	chr3	106832462	106834490	intron
ENSMUSG000000099908	Gm28539	14099	0.000443741	0.003786262	0.441723904	325.3998242	458.9437172	chr16	18836184	18838147	promoter
ENSMUSG000000054967	Zfp647	7283	0.000073058	0.000877218	0.442001237	455.4524336	636.9141808	chr15	76924524	76926058	intergenic
ENSMUSG000000026770	I11ra	1670	2.99749E-20	7.47969E-18	0.442595046	728.526096	9885.94696	chr2	11642818	11659986	promoter
ENSMUSG000000075415	Fnbp1	13251	0.								

ENSMUSG00000044526	Znr4	18509	0.001164005	0.008681812	0.451784858	242.5261243	349.2629426	chr17	56507952	56511288	promoter
ENSMUSG00000024521	Pmaip1	4204	1.47905E-09	6.42214E-08	0.453503092	1469.011925	2037.777866	chr18	66456653	66461667	promoter
ENSMUSG00000038352	Arl5c	11264	0.000670389	0.005524821	0.453904626	337.0479559	484.5652843	chr11	97994213	97996238	promoter
ENSMUSG00000031642	Sh3rf1	9856	0.000348028	0.003227626	0.454792256	315.2069335	449.9761815	chr8	61276266	61278058	intron
ENSMUSG00000024099	Ndufv2	825	4.27618E-10	2.10741E-08	0.455455978	1423.587371	1975.490177	chr17	66098541	66102960	promoter
ENSMUSG00000064065	Ipccef1	10992	0.000010831	0.000169051	0.455512671	547.9023203	770.3589634	chr10	6978583	6981391	promoter
ENSMUSG00000034781	Gna11	13461	5.76351E-05	0.000710989	0.455858155	451.8806839	638.1557526	chr10	81545506	81547930	promoter
ENSMUSG00000027470	Mylk2	11168	0.00073937	0.006000498	0.4558623	262.2610736	377.0487278	chr2	152906618	152908465	intergenic
ENSMUSG00000032251	Ikrahbp1	5294	2.21164E-05	0.000314333	0.456866354	523.0341886	738.4887343	chr9	82828771	82830739	promoter
ENSMUSG00000065397	Mir155	6404	0.000010922	0.000170202	0.456923699	665.9683375	938.7731059	chr16	84713395	84715378	promoter
ENSMUSG00000015023	Ddx19a	5459	3.13653E-06	5.73565E-05	0.457221154	642.5028439	901.749925	chr8	110996741	11098313	promoter
ENSMUSG00000007777	0610009B22R	8538	0.000355535	0.003276108	0.45741343	345.0731456	494.8602563	chr11	51688877	51690475	promoter
ENSMUSG000000099319	Mir7648	7501	0.000410089	0.003698114	0.458697571	297.4244805	427.0121564	chr15	90224309	90225657	promoter
ENSMUSG00000037411	Serpine1	18573	1.97924E-05	0.000285836	0.458875614	517.2160459	731.2070287	chr5	137065755	137072219	promoter
ENSMUSG00000028496	Mlt3	14512	1.03514E-08	3.77884E-07	0.459300403	1069.288345	1489.560657	chr4	87980016	87984667	intron
ENSMUSG00000021895	Arhgef3	3701	3.97816E-12	2.9153E-10	0.459845695	2065.813382	2870.057862	chr14	27333717	27341463	intron
ENSMUSG00000008496	Pou2f2	12816	0.000246289	0.0024373	0.4599599	337.0583915	481.6365477	chr7	25128584	25130600	promoter
ENSMUSG00000021895	Arhgef3	16854	2.77036E-06	5.16929E-05	0.460594827	641.0371672	902.4627086	chr14	27355396	27358709	intron
ENSMUSG00000050549	5730508B09R	8824	1.15988E-05	0.00017891	0.460656448	524.754416	914.162763	chr3	127893480	127896369	promoter
ENSMUSG00000090069	E430024P14R	8998	6.27655E-05	0.000768037	0.46101762	448.366755	637.9485591	chr17	7903167	7905085	intron
ENSMUSG00000074923	Pak6	11944	2.53785E-06	4.79202E-05	0.461102906	643.9908024	905.327444	chr2	118663641	118667768	promoter
ENSMUSG00000038679	Trps1	8926	9.39453E-07	0.03958E-05	0.461415644	689.4153564	968.5513802	chr15	50650532	50655209	intron
ENSMUSG00000105557	mmu-mir-396	7138	0.000366859	0.003362109	0.462119034	304.5613514	438.5991003	chr10	97313201	97314630	intergenic
ENSMUSG00000043872	Zmym1	4510	2.26447E-06	4.36786E-05	0.463234236	641.3087821	904.3570668	chr4	127058569	127061858	promoter
ENSMUSG00000032020	Ubash3b	17648	0.000860869	0.006761083	0.46383021	250.6418523	364.1452793	chr9	41049282	41052253	intron
ENSMUSG00000090709	Gm17173	10203	1.69091E-05	0.000248197	0.4646191506	485.4366837	689.0418276	chr14	45038469	45041145	intergenic
ENSMUSG00000038175	Mylip	12097	0.000489377	0.004270509	0.466480622	280.2075391	405.3510349	chr13	45389749	45391622	promoter
ENSMUSG00000027472	Pdrg1	4315	5.34095E-07	1.24452E-05	0.466521618	759.6227216	1070.320861	chr2	153012861	153015370	promoter
ENSMUSG00000044030	Irf2bp1	8375	1.57434E-06	0.000031636	0.467064716	653.1536438	921.7116154	chr7	19003783	19006565	promoter
ENSMUSG00000089107	Gm23117	10807	0.00011508	0.001270868	0.467078586	354.8014985	508.5010212	chr13	43864813	43866447	intergenic
ENSMUSG00000037434	Slc30a1	10708	0.001151784	0.008645622	0.467748955	243.5748555	356.4981981	chr1	191905176	191906535	promoter
ENSMUSG00000016756	Cnah	12275	6.69617E-07	1.51901E-05	0.468859942	688.8721267	973.459049	chr13	24415839	24420624	promoter
ENSMUSG00000045868	Gvin1	10376	0.000692631	0.005674912	0.469484965	256.6017255	374.8354442	chr7	106237070	106238279	intergenic
ENSMUSG00000030592	Ryr1	9770	0.000368121	0.003370543	0.469537721	286.9651928	415.5356097	chr7	29039859	29041071	intron
ENSMUSG00000056413	Adap1	11549	2.26409E-05	0.000320172	0.470059814	462.6509325	659.3494177	chr5	139300238	139303134	promoter
ENSMUSG00000098108	Gm27008	19437	0.000344034	0.003196014	0.470075244	306.3498352	444.7605631	chr3	107089114	107092849	promoter
ENSMUSG00000024521	Pmaip1	17443	0.000476031	0.004178095	0.470439211	262.3516119	381.3662325	chr18	66441261	66444770	intergenic
ENSMUSG00000030350	Furin	261	9.19683E-19	1.80765E-16	0.470453629	4332.948094	6040.143211	chr7	80396657	80404195	promoter
ENSMUSG00000084746	Gm25292	7693	8.11398E-08	2.36262E-06	0.47083488	1037.845045	1465.368661	chr16	84622916	84627143	intergenic
ENSMUSG00000022178	Ajuba	11979	1.7762E-07	4.7189E-07	0.471451777	802.3297164	1131.884834	chr14	54573518	54579602	promoter
ENSMUSG00000077356	Gm26288	17053	0.001366313	0.009899617	0.471732938	199.9883598	295.3390685	chr7	58397634	58399176	intergenic
ENSMUSG00000029594	Rbm19	5283	3.62086E-05	0.000476807	0.472195348	413.3323233	591.7725124	chr5	120115958	120118255	promoter
ENSMUSG00000036478	Btg1	486	7.09719E-08	2.10703E-06	0.473431458	1288.45136	1819.937345	chr10	96616990	96618449	promoter
ENSMUSG00000030231	Plekha5	9116	0.000394151	0.003575652	0.474154532	274.6728575	400.8127357	chr6	140516461	140562719	intron
ENSMUSG00000033318	Gstt2	16880	1.57882E-05	0.000233834	0.474527633	526.8590784	752.4756266	chr10	75839548	75844149	intergenic
ENSMUSG00000031154	Otud5	17102	0.000160457	0.001691486	0.475719399	340.7941537	494.1352064	chrX	7863821	7865461	intron
ENSMUSG00000095993	Gm21060	10561	0.000795645	0.006342319	0.475750909	247.3312818	364.6495347	chr19	61266195	61267317	intergenic
ENSMUSG00000033854	Kcnk10	17371	6.63007E-05	0.00080529	0.476040559	408.2787419	587.3446105	chr12	98574528	98578022	promoter
ENSMUSG00000090069	E430024P14R	11868	5.05731E-05	0.000633358	0.476660649	388.1934858	559.6692225	chr17	7939934	7941851	intron
ENSMUSG000000104069	Gm37198	11409	3.1879E-06	5.80268E-05	0.476870215	579.2000808	827.1230402	chr1	60777314	60780378	promoter
ENSMUSG00000044712	Ust	6566	2.65772E-05	0.000365864	0.477428484	464.881672	669.4603944	chr10	8129064	8130977	intergenic
ENSMUSG00000022120	Smg9	19252	0.000506819	0.004391613	0.47935238	254.2581658	372.9410859	chr7	24394680	24397249	intergenic
ENSMUSG00000038371	Sbf2	9445	6.75413E-05	0.000818844	0.480585532	363.0589571	525.8433034	chr7	110613428	110615338	promoter
ENSMUSG00000057440	Mpp7	11694	0.000298131	0.002847415	0.480840443	277.3155318	405.4750331	chr18	7610021	7611825	intron
ENSMUSG00000088340	Gm22338	17754	0.001354116	0.009824649	0.482379873	200.9494349	300.8749469	chr2	61401387	61403528	intergenic
ENSMUSG00000044641	Pard6b	12895	0.000113138	0.001260374	0.482500214	340.7823074	495.0687845	chr2	168078335	168080587	promoter
ENSMUSG00000091007	D630036H23F	8906	0.000274057	0.002656089	0.483329512	320.5723848	470.8237192	chr12	36381117	36382898	promoter
ENSMUSG000000101585	1600010M07F	7669	0.000618009	0.005175367	0.484111532	228.4505231	338.2538523	chr7	110164363	110164896	intergenic
ENSMUSG000000033530	Cht2	14128	2.63036E-05	0.000363514	0.484473253	456.7147518	661.6880343	chr9	95326516	95330290	intergenic
ENSMUSG00000024521	Pmaip1	17319	0.000616344	0.005165809	0.486883392	236.3510463	350.2591871	chr18	66444975	66447725	intergenic
ENSMUSG00000022114	Spry2	12417	1.52773E-06	3.09518E-05	0.487608673	679.9742717	976.1261439	chr14	105894484	105899000	promoter
ENSMUSG00000033721	Vav3	7948	2.02314E-06	3.96837E-05	0.48769613	559.0570039	803.7774232	chr3	109339840	109342665	promoter
ENSMUSG000000072621	Sifn10-ps	17057	0.000178762	0.001853732	0.488351343	329.5318677	485.3393997	chr11	83045963	83048324	intergenic
ENSMUSG00000037944	Ccr7	14454	2.35668E-12	1.76644E-10	0.488784459	1734.356518	2460.539188	chr11	99161059	99168189	intergenic
ENSMUSG00000084746	Gm25292	14413	0.000603279	0.000733833	0.489087077	355.8827401	520.000766	chr16	84621753	84622662	promoter
ENSMUSG00000032009	Sesn3	4872	1.25579E-07	3.48178E-06	0.48950528	930.5388426	1335.539532	chr9	14276342	14280747	promoter
ENSMUSG00000084754	Gm12532	4364	4.89793E-06	8.41787E-05	0.489603606	526.1347721	758.9205504	chr3	37203877	37206277	intergenic
ENSMUSG00000036526	Card11	8312	3.44497E-07	8.4361E-06	0.						

ENSMUSG000000029174	Tbc1d1	17691	0.000677962	0.005575578	0.498646128	204.4707101	308.2793161	chr5	64228112	64230184	promoter
ENSMUSG00000105826	RP23-41J13.2	12407	8.62672E-05	0.00100925	0.500685817	304.7082998	450.9233606	chr5	105493172	105495251	promoter
ENSMUSG00000031154	Otud5	11772	0.000307833	0.002923082	0.501186711	242.1469071	362.6951793	chrX	7866053	7867331	intron
ENSMUSG00000092607	Scnm1	6540	5.79078E-06	0.000097152	0.503144966	457.2290711	668.1820235	chr3	95132735	95133960	promoter
ENSMUSG00000038679	Trps1	12064	0.000612171	0.005140329	0.503640089	244.0036472	370.7891341	chr15	50751467	50753284	intron
ENSMUSG00000040747	Cd53	10578	1.44345E-05	0.000215969	0.50382492	422.5249841	621.8587804	chr3	106783593	106785120	intron
ENSMUSG00000004637	Wwox	9460	0.001122786	0.00847879	0.504267419	181.6797411	279.3487553	chr8	114439503	114440609	promoter
ENSMUSG00000097115	1810019N24R	10833	0.000451366	0.004006206	0.505469427	219.4123482	332.2518521	chr7	12947862	12949528	promoter
ENSMUSG00000039697	Ncoa7	12672	2.47717E-05	0.000345349	0.506969001	403.8764942	597.5550526	chr10	30653711	30656765	promoter
ENSMUSG00000072621	Sifn10-ps	16865	0.000690357	0.005663343	0.509203278	202.6599445	310.5907306	chr11	83044972	83045764	intergenic
ENSMUSG00000097116	Gm26729	17268	0.000372958	0.003408498	0.5094003	223.4813531	338.3287851	chr7	75799943	75802483	intergenic
ENSMUSG00000038172	Ttc39b	926	5.00942E-21	1.41072E-18	0.50967557	3279.037015	4701.411756	chr4	83321551	83328142	promoter
ENSMUSG00000044770	Scml4	17310	0.000229231	0.002296152	0.510889269	241.8752922	365.1796575	chr10	42885991	42888476	intron
ENSMUSG00000075415	Fnbp1	11858	0.000952664	0.007382019	0.5109362	190.9501849	295.0446758	chr2	31062660	31063657	intron
ENSMUSG00000033909	Usp36	17220	0.000130152	0.001420314	0.512580316	271.1129541	407.9227123	chr11	118290486	118292564	promoter
ENSMUSG00000028300	3110043O21R	12706	0.000740847	0.006007536	0.513996993	182.4040474	281.3780435	chr4	35222024	35224071	promoter
ENSMUSG00000039221	Rpl22l1	4462	7.09553E-06	0.000116175	0.514279791	421.4608066	624.0243333	chr3	28805502	28807127	promoter
ENSMUSG000000106147	U3	2535	1.88763E-08	6.46022E-07	0.515216825	864.3492901	1263.397125	chr10	40256027	40258485	promoter
ENSMUSG00000037138	Aff3	17128	7.33953E-06	0.000119475	0.51574888	410.8716346	609.2878583	chr1	38659763	38662693	intron
ENSMUSG0000021453	Gadd45g	1911	2.04387E-11	1.30391E-09	0.516475837	1448.747988	2099.880224	chr13	51846604	51848926	promoter
ENSMUSG00000107329	AC132393.1	8181	2.44151E-06	4.64571E-05	0.516545232	487.7973075	721.1941829	chr1	119523432	119526995	promoter
ENSMUSG00000035877	Zhx3	6916	4.58451E-06	7.96952E-05	0.516649482	463.5288156	686.851742	chr2	160872043	160874242	promoter
ENSMUSG00000046876	Atxn1	8317	2.93443E-06	5.40117E-05	0.517030141	472.4371062	699.2509531	chr13	45686027	45687658	intron
ENSMUSG00000102541	Gm38135	12050	0.000265913	0.002596302	0.517120255	221.3307162	336.7410859	chr1	38723971	38725579	promoter
ENSMUSG00000107751	RP24-95A6.1	17291	0.001229301	0.009059141	0.518862215	151.2361712	236.6302333	chr6	108873811	108876017	intergenic
ENSMUSG00000031843	Mphosph6	17135	5.58042E-05	0.000690564	0.519729264	313.4236676	470.2839993	chr8	117786902	117790604	intergenic
ENSMUSG00000030068	Gm20696	17259	0.000246416	0.002437329	0.519826743	233.6401156	355.4993382	chr6	99342493	99344922	intron
ENSMUSG00000038250	Usp38	9081	0.000672557	0.005540377	0.52108908	206.1634378	321.0587664	chr8	81015190	81015913	promoter
ENSMUSG00000037944	Ccr7	11940	2.51801E-05	0.000350054	0.521730643	353.2059376	530.4688018	chr11	99171245	99172698	intergenic
ENSMUSG00000082532	Rpl31-ps6	17415	0.001278078	0.009334845	0.522214449	141.2584853	222.9281366	chr5	123469393	123471259	intergenic
ENSMUSG00000024900	Cpt1a	10304	0.000557617	0.004750345	0.523038637	180.12874	279.201559	chr19	3321281	3323177	promoter
ENSMUSG00000024789	Jak2	625	3.52895E-23	1.15944E-20	0.523071953	3270.892376	4731.612426	chr19	29240906	29256282	promoter
ENSMUSG00000038127	Ccdc50	16677	3.69754E-15	4.39094E-13	0.523329463	1739.467418	2527.667831	chr16	27388529	27394643	promoter
ENSMUSG00000036529	Sbf1	10862	0.000421853	0.003790332	0.523552301	200.9672168	309.6312852	chr15	89315462	89316831	promoter
ENSMUSG00000037940	Inpp4b	8087	2.09989E-10	1.08649E-08	0.524103157	949.8367539	1388.662088	chr8	81341753	81346432	promoter
ENSMUSG00000057421	Las1l	17932	0.001142649	0.008567911	0.524269423	150.3871985	236.617967	chrX	95965997	95967944	intergenic
ENSMUSG00000038963	Slc04a1	13906	0.000231686	0.00231486	0.525024369	220.8438966	338.2661186	chr2	180436713	180438415	intergenic
ENSMUSG00000088672	Gm14546	12766	0.00017626	0.001834989	0.5251092	277.1738031	422.6101218	chr6	34272847	34274559	intergenic
ENSMUSG00000076477	Trbv21	13774	0.000805151	0.003699375	0.525994654	192.1954389	302.4354444	chr6	41202133	41204008	promoter
ENSMUSG00000044303	Cdkn2a	12861	0.000837273	0.006612649	0.527103471	167.5529476	263.1240467	chr4	89294204	89295818	promoter
ENSMUSG00000030775	Trat1	13734	0.000140912	0.001524589	0.527901347	238.4059271	364.9207293	chr16	48769956	48772114	promoter
ENSMUSG00000035181	Heatr5a	12483	8.87752E-05	0.001036131	0.528429231	281.357037	429.5947655	chr12	51863074	51865159	intergenic
ENSMUSG00000055435	Maf	13498	0.00032805	0.003070677	0.528630337	267.0714489	412.7295368	chr8	115705599	115707821	promoter
ENSMUSG00000028420	Tmem38b	6573	3.68133E-05	0.000482193	0.528842432	319.667002	484.7124806	chr4	53825756	53827542	promoter
ENSMUSG000000103820	Gm38175	18791	0.000838447	0.006619266	0.529659153	155.5545091	244.9327162	chr10	18922613	18924613	promoter
ENSMUSG00000026989	Dapl1	19094	0.001322946	0.009623336	0.529937569	139.3794633	222.7073421	chr2	59486817	59488237	intron
ENSMUSG00000030124	Lag3	9752	4.9217E-14	4.85107E-12	0.53004995	1698.73900	2480.14115	chr6	124899717	124907851	intron
ENSMUSG00000020841	Cpd	7628	1.86427E-07	4.90004E-06	0.531073981	577.5362635	858.6620775	chr11	76843363	76845560	promoter
ENSMUSG00000076128	Mir686	5014	8.24995E-08	2.38462E-06	0.531881882	612.2692609	909.1897587	chr14	54614757	54618372	promoter
ENSMUSG00000021176	Efcab11	9367	3.43599E-05	0.000457969	0.532141591	307.4533587	467.0622047	chr12	99873472	99875330	intron
ENSMUSG00000054258	Gm5082	18516	0.001371409	0.009920949	0.532932333	152.6231559	245.8444309	chr13	41669641	41671369	intergenic
ENSMUSG00000020601	Trib2	3624	2.9057E-12	2.16151E-10	0.533877672	1401.877644	2061.935732	chr2	15812238	15816767	promoter
ENSMUSG00000044860	Gm1123	17502	0.000527993	0.004537192	0.534649037	175.0690358	275.1797816	chr9	99006959	99008876	intron
ENSMUSG00000075415	Fnbp1	11422	0.00036847	0.003372172	0.53495976	195.4325352	305.831637	chr2	31035718	31036884	intron
ENSMUSG000000099913	Gm28551	12358	0.000321412	0.003022894	0.535284348	188.4596768	293.8263021	chr1	53351302	53352684	promoter
ENSMUSG000000031700	Gpt2	15050	0.000483009	0.004226172	0.535592779	170.2980065	267.6759468	chr8	85491333	85492391	promoter
ENSMUSG00000030067	Foxp1	16660	0.001345997	0.00977659	0.537318632	125.592541	202.9283125	chr6	99175221	99176301	intron
ENSMUSG00000037940	Inpp4b	17492	0.000818688	0.006491874	0.537319777	155.7526498	248.0441136	chr8	81558867	81560647	intron
ENSMUSG00000033713	Foxn3	18311	0.000464278	0.004091244	0.539730751	197.7694665	311.4288471	chr12	99378473	99380863	intron
ENSMUSG000000015396	Cd83	10739	9.97307E-05	0.001139045	0.540249123	242.5959958	374.7373133	chr13	43778270	43779559	intergenic
ENSMUSG000000087867	Gm15908	19204	0.000708937	0.00578447	0.540465379	155.0847536	246.9742708	chr13	34650968	34653623	promoter
ENSMUSG00000068959	Zfp619	9008	0.000612261	0.005140329	0.541699023	158.4465164	251.6979001	chr7	39517028	39517964	promoter
ENSMUSG000000098108	Gm27008	17485	0.000249232	0.002258826	0.542619924	210.0343021	329.0545903	chr3	107081096	107083238	intron
ENSMUSG00000020589	Fam49a	13619	0.000753373	0.006076616	0.544453337	183.0994433	292.9649875	chr12	12262190	12264024	promoter
ENSMUSG00000039153	Runx2	17196	0.001200053	0.008904533	0.545216464	147.6421396	240.1368235	chr17	44738232	44739923	promoter
ENSMUSG00000024521	Pmaip1	10666	2.94968E-07	7.35107E-06	0.545338075	489.8967521	737.7023525	chr18	66448066	66452667	intergenic
ENSMUSG000000060429	Sntb1	18871	0.000501261	0.004356714	0.54578257	158.4804645	252.4856165	chr15	55851331	55853687	intron
ENSMUSG00000057982	Zfp809	4752	6.44232E-05	0.000786362	0.5						

ENSMUSG000000024795	Kif20b	12783	1.14314E-05	0.000177095	0.551079643	314.1598201	482.5837268	chr19	34921456	34923248	promoter
ENSMUSG000000050323	Ndufaf6	13595	0.000172772	0.001806824	0.551379187	211.0643514	332.9291713	chr4	11089327	11090787	intergenic
ENSMUSG000000017418	Arl5b	14749	2.67959E-05	0.000367579	0.551928023	280.3886156	432.8178947	chr2	15049443	15050880	promoter
ENSMUSG000000024101	Wash1	13904	2.63512E-05	0.000363514	0.552386904	307.8837682	477.4430413	chr17	66112565	66114606	promoter
ENSMUSG000000036196	Slc26a8	12268	1.11531E-05	0.000173256	0.554903324	325.7055672	502.3886238	chr17	28689108	28691197	promoter
ENSMUSG000000021728	Emb	18914	0.001053423	0.008027105	0.555099939	125.1739778	207.2458172	chr13	117262217	117263960	intron
ENSMUSG000000037138	Aff3	5269	1.7432E-14	1.89854E-12	0.55510367	1389.867358	2071.223528	chr1	38662863	38666851	promoter
ENSMUSG000000026832	Cytip	9809	0.000599809	0.005050848	0.555529395	145.9731045	237.5406134	chr2	58135272	58135273	intron
ENSMUSG000000024098	Twsg1	11183	4.30304E-05	0.000551892	0.555682369	256.6974816	399.4839647	chr17	65938461	65939752	intron
ENSMUSG000000028634	Hivep3	15670	0.000377583	0.003441194	0.556653071	156.7997632	252.116291	chr4	119963043	119964153	intron
ENSMUSG000000063077	Kif1b	17934	0.000850149	0.006700917	0.557180052	133.2323956	219.7540729	chr4	149261095	149262370	intron
ENSMUSG000000098266	Gm27516	17759	5.17149E-07	1.20932E-05	0.557696649	481.7009215	732.9664569	chr13	31624102	31630446	promoter
ENSMUSG000000020841	Cpd	1333	8.30795E-11	4.63951E-09	0.560293367	844.3242512	1268.933003	chr11	76845895	76847471	promoter
ENSMUSG000000087366	Junos	562	8.39319E-19	1.67126E-16	0.560611075	2182.07244	3252.722994	chr4	95047936	95052191	promoter
ENSMUSG000000022377	Asap1	17633	0.001155829	0.008640618	0.560926773	110.8831718	185.425233	chr15	64250438	64251761	intron
ENSMUSG000000100389	Rbm6-ps2	4273	2.85412E-06	0.000052879	0.561583597	348.7288051	537.283051	chr1	144215588	144216251	intergenic
ENSMUSG000000048581	E130311K13R	7318	0.000311751	0.00295459	0.56323068	169.9187893	274.6264607	chr3	63928580	63929405	promoter
ENSMUSG000000045763	Basp1	14593	6.28062E-07	1.43456E-05	0.563347669	525.5076326	807.6016041	chr15	25411129	25413999	promoter
ENSMUSG000000099300	Mir6356	11402	0.00012406	0.001365487	0.564733959	200.0277058	318.1190982	chr18	68829453	68830880	intergenic
ENSMUSG000000040274	Cdk6	18432	0.001246753	0.009153538	0.564980489	108.5173301	183.2351474	chr5	3354296	3355736	intron
ENSMUSG000000034833	Tespa1	18014	0.00071557	0.005828942	0.565642927	145.3222724	241.5269263	chr10	130330797	130332544	intron
ENSMUSG000000039910	Cited2	3897	6.6191E-13	5.50558E-11	0.566223778	1107.967092	1668.723627	chr10	17721347	17725502	promoter
ENSMUSG000000032606	Nicn1	13100	0.0002273	0.002277968	0.567865494	180.1628272	291.6861666	chr9	108288561	108290271	promoter
ENSMUSG000000032012	Pvrl1	17957	5.54572E-05	0.000687132	0.56798208	221.3136521	350.1978553	chr9	43742800	43745680	promoter
ENSMUSG000000030102	Itp1	10720	7.14922E-06	0.000116957	0.569110573	300.101283	467.9221847	chr6	108480467	108482587	intron
ENSMUSG00000004748	Mtfp1	10781	3.08087E-06	5.65754E-05	0.570353254	330.3689942	513.5313095	chr11	4094605	4096654	promoter
ENSMUSG000000010914	Pdhx	13639	0.00015388	0.001635277	0.570526649	178.3402603	287.1960482	chr2	102981996	102983126	intergenic
ENSMUSG000000099093	Gstt4	17710	5.885894	0.001005426	0.571044777	199.5015402	318.6110873	chr10	75824884	75826579	intergenic
ENSMUSG000000105826	RP23-41J13.2	17249	0.000748905	0.006057923	0.572527695	115.597791	194.3791677	chr5	105499646	105500578	intergenic
ENSMUSG000000018181	Evi5	11065	0.000109991	0.001229864	0.570505219	186.5071805	300.7509486	chr5	10777774	107778819	intron
ENSMUSG000000100782	Gm28231	18733	0.00085085	0.006703759	0.576045797	136.6908145	231.6722086	chr9	88239688	88241670	intergenic
ENSMUSG000000031668	Eif2ak3	11368	2.79494E-06	5.20762E-05	0.576115955	350.1039434	546.5340477	chr6	70822878	70825230	intergenic
ENSMUSG000000031129	Slc9a9	19417	0.001212052	0.008962181	0.57642094	94.34597281	163.7027796	chr9	95313961	95315049	intergenic
ENSMUSG000000050323	Ndufaf6	18845	0.001268297	0.009287075	0.57697567	91.87252878	159.4466068	chr4	11094420	11095597	intergenic
ENSMUSG000000102431	Gm38052	12054	0.001091823	0.008261443	0.577558008	98.0698887	169.2127907	chr12	25359193	25360018	intergenic
ENSMUSG000000022377	Asap1	17531	0.000283375	0.002732959	0.577827712	164.2305309	269.4108424	chr15	64185186	64186977	intron
ENSMUSG000000024098	Twsg1	1647	1.22476E-09	5.51227E-08	0.578022217	670.5568796	1025.574385	chr17	65948988	65952241	promoter
ENSMUSG000000032018	Sc5d	18187	0.001367837	0.0009906017	0.578530604	88.70890668	155.6210912	chr9	42208219	42209067	intergenic
ENSMUSG000000045868	Gvin1	6943	2.64208E-06	4.96031E-05	0.578804336	330.3125841	517.8120151	chr7	106235232	106236896	intergenic
ENSMUSG000000041801	Phlda3	7476	4.73812E-15	5.55968E-13	0.580710947	1296.56187	1967.116765	chr1	135763575	135770201	promoter
ENSMUSG000000027763	Mbnl1	18237	0.000776689	0.006239067	0.582393839	105.0820932	179.6930928	chr3	60597255	60598546	promoter
ENSMUSG000000024548	Setbp1	11246	8.71931E-06	0.00013851	0.582676727	336.7014562	531.8207708	chr18	79107834	79110377	promoter
ENSMUSG000000028634	Hivep3	17287	1.01193E-16	2.17356E-05	0.5826956	369.1316505	577.4789611	chr4	119919635	119923023	intron
ENSMUSG000000032841	Prrsl	10096	4.28094E-06	0.000751474	0.585101428	334.3934353	529.6810853	chr2	101754756	101756537	intron
ENSMUSG000000031642	Sh3rf1	17715	0.000292376	0.002797863	0.585790079	157.4112492	263.1117803	chr8	61423861	61425533	intergenic
ENSMUSG000000037138	Aff3	18699	0.001042062	0.007962082	0.58666094	89.54081532	156.9130631	chr1	38646158	38647439	intron
ENSMUSG000000033420	Antxr1	18750	7.31126E-05	0.000877218	0.587119628	195.1267922	317.455386	chr6	87151902	87154636	intron
ENSMUSG000000021895	Arhgef3	13493	3.81568E-05	0.000497919	0.58736674	219.3270277	353.3460517	chr14	27376310	27378437	intron
ENSMUSG000000079359	Gm9006	17179	0.000120736	0.001334869	0.588458413	174.5428072	287.1347164	chr12	107558298	107560275	intergenic
ENSMUSG000000037797	Adh4	17003	0.000620182	0.005191357	0.588908655	111.7321445	191.5866958	chr3	138419745	138420446	intron
ENSMUSG000000021451	Sema4d	17687	0.000328904	0.003074249	0.589288153	138.0266068	231.3778159	chr13	51710611	51712055	intron
ENSMUSG00000005087	Cd44	12904	5.63411E-05	0.000695898	0.590060593	204.4618038	329.877712	chr2	102946987	102948487	intergenic
ENSMUSG000000074384	Al429214	17410	0.000799996	0.006363703	0.590154696	99.40568105	173.4198813	chr8	36993309	36994630	promoter
ENSMUSG000000075707	Dio3	17916	0.000500367	0.004354218	0.590350441	114.9128307	195.7570041	chr12	110380113	110382112	intergenic
ENSMUSG000000026971	Itgb6	17263	0.000254025	0.002498715	0.590834809	150.3819807	252.3002864	chr2	60693136	60694647	intron
ENSMUSG000000016611	Hoxc6	19605	0.000210676	0.002139647	0.591208408	151.6324526	252.3629529	chr15	102998429	103001029	promoter
ENSMUSG000000045594	Glb1	18491	0.000973753	0.007510011	0.591680457	88.69184258	156.3720086	chr9	114440835	114441843	intron
ENSMUSG000000008435	Rdh13	10894	2.21842E-05	0.000314843	0.591691025	225.9941432	363.8140875	chr7	4444148	4445642	promoter
ENSMUSG00000000386793	Trps1	13709	0.000327919	0.003070677	0.592315022	141.8699714	240.3698843	chr15	50648614	50650270	intergenic
ENSMUSG0000000097823	Gm16701	11512	1.16772E-05	0.000179698	0.592425567	249.4477905	400.1367512	chr1	167000192	167002841	promoter
ENSMUSG000000031628	Casp3	12712	0.000361001	0.00331458	0.592890774	125.1227855	211.7227845	chr8	46644064	46645013	intergenic
ENSMUSG000000039484	Mmd	18921	0.000104633	0.001182563	0.593138089	190.3045706	313.283737	chr11	90223709	90226580	intron
ENSMUSG0000000086648	Gm15511	13455	2.44955E-05	0.000342467	0.593724295	230.3688919	371.7717777	chr9	69347519	69349652	intron
ENSMUSG000000031758	Cdyl2	17230	0.000125345	0.001375799	0.594000163	165.0060294	272.4609079	chr8	116636310	116638136	intron
ENSMUSG000000069520	Tmem19	17083	3.96006E-06	7.02021E-05	0.594687252	307.6514994	491.2446035	chr10	11533359	11533592	intergenic
ENSMUSG000000033773	Rpap2	18225	0.001246279	0.009153538	0.596999896	75.66335475	137.4665599	chr5	107647958	107648826	intron
ENSMUSG000000068015	Lrch1	18527	0.000348092	0.003227626	0.59744369	136.5950584	233.3103079	chr14	74847929	74849635	intron
ENSMUSG000000077268	Gm24433										

ENSMUSG000000099419	1700001D01R	13798	6.30183E-06	0.000104745	0.605860011	255.9561113	413.7652497	chr8	61281002	61283125 intron
ENSMUSG00000020422	Trs3	17832	0.000487203	0.004253428	0.606091805	101.720304	178.2661909	chr11	8663461	8665100 promoter
ENSMUSG00000027763	Mbnl1	7099	1.6837E-07	4.50962E-06	0.606192982	453.8568727	722.6210848	chr3	60407678	60409936 intergenic
ENSMUSG00000100435	Gm29174	17394	0.000639195	0.005317111	0.60700895	99.19047629	176.6171599	chr8	34396844	34398074 intergenic
ENSMUSG000000090709	Gm17173	14965	5.85872E-06	9.82083E-05	0.607125246	258.2143505	417.9832888	chr14	45006145	45007381 promoter
ENSMUSG00000097308	Gm6410	6575	1.18224E-06	2.47668E-05	0.60750503	315.6989709	505.6104184	chr8	4677520	4679035 promoter
ENSMUSG00000020900	Myh10	17508	0.000144257	0.001553103	0.607663129	153.8394995	259.3489312	chr11	68674901	68676608 intergenic
ENSMUSG00000020083	2010107G23R	17351	0.000652997	0.005415452	0.608000743	90.29924978	161.340965	chr10	62109818	62111300 promoter
ENSMUSG00000021798	Ldb3	9601	1.77872E-06	3.52755E-05	0.608495437	293.4853598	472.7194121	chr14	34548168	34549590 intron
ENSMUSG00000080948	Gm14481	17493	0.001241921	0.009135073	0.609005379	67.42296032	126.9126596	chrX	11252809	11254054 intergenic
ENSMUSG00000033910	Gucy1a3	17891	0.000452469	0.004014186	0.6090425	105.6253229	185.0804402	chr3	82144548	82145813 promoter
ENSMUSG00000015396	Cd83	17405	1.76081E-05	0.00025769	0.609121604	230.9974413	378.9812198	chr13	43771293	43774214 intergenic
ENSMUSG000000100211	1700064M15f	9483	5.1913E-06	8.85261E-05	0.610167909	355.7305739	579.694914	chr12	99626448	99629035 promoter
ENSMUSG00000106205	RP23-326O2.2	14397	7.1586E-16	9.28068E-14	0.610716239	128.551052	1936.583569	chr5	64801569	64808623 promoter
ENSMUSG00000028496	Milt3	9564	2.80942E-07	7.01039E-06	0.61107096	361.9947796	578.2680121	chr4	87984976	87986991 intron
ENSMUSG00000063409	Lrrc43	18074	0.000395259	0.003584057	0.611692111	145.7289894	254.7234328	chr5	123498003	123499846 intron
ENSMUSG00000084746	Gm25292	18155	2.2449E-06	4.37412E-05	0.612071642	307.1817438	497.4932655	chr16	84637940	84641635 intergenic
ENSMUSG00000070705	Eid2b	5489	5.23419E-06	0.00008893	0.612281329	266.3300785	432.5971002	chr7	28277736	28278818 promoter
ENSMUSG00000032021	Crtam	17298	5.58817E-06	9.43955E-06	0.612987282	258.2143505	420.3709708	chr9	40995457	40997843 intron
ENSMUSG0000011831	Evi5	13989	1.46416E-06	2.98171E-05	0.613099904	293.0156043	473.5807267	chr5	107779179	107781625 intron
ENSMUSG00000100837	1700063D05R	9041	0.000260479	0.002550826	0.613998668	124.4326074	216.691741	chr9	41207697	41208299 promoter
ENSMUSG00000032018	Sc5d	10570	0.000603555	0.005079893	0.617279793	68.61836839	160.9593732	chr9	42209324	42209644 intergenic
ENSMUSG00000024785	Rcl1	17061	5.19691E-08	1.61588E-06	0.618404721	399.0765545	637.8732623	chr19	29145746	29150185 intergenic
ENSMUSG00000085120	Gm16086	18964	0.000322558	0.003030783	0.618469162	117.0975958	206.6188981	chr12	107046383	107047828 intergenic
ENSMUSG00000103015	Gm37549	18280	0.000106022	0.001194291	0.619311094	143.9864801	246.2246881	chr17	84062895	84064536 intergenic
ENSMUSG00000051335	Gfod1	18431	1.66246E-05	0.002447571	0.619630915	245.949515	406.6675395	chr13	43240337	43243322 intron
ENSMUSG00000087897	Gm25283	8849	4.39083E-05	0.000559326	0.619795492	186.5806547	313.7266607	chr6	47650538	47651655 intergenic
ENSMUSG00000028634	Hivep3	13661	2.830419E-09	1.15281E-07	0.620345038	545.089005	866.0064496	chr4	119959700	119962859 intron
ENSMUSG00000087190	D430001F17R	17301	0.000181314	0.001874276	0.620700426	124.6871582	216.5936101	chr16	91961040	91962517 intron
ENSMUSG00000087022	9130024F11Ri	17628	0.000124536	0.001369202	0.62102298	139.3453531	239.1024452	chr1	56972036	56973980 promoter
ENSMUSG00000091896	Ube2d2a	12807	0.000543542	0.004656602	0.622178589	90.4461981	164.2193015	chr8	35770751	35771230 promoter
ENSMUSG00000051335	Gfod1	11664	2.25493E-08	7.5214E-07	0.622546118	425.6767599	681.2803992	chr13	43257853	43261337 intron
ENSMUSG00000058997	Vwa8	11358	0.000144199	0.001553103	0.623696873	134.2633449	233.198576	chr14	79142137	79142752 intron
ENSMUSG00000022312	Eif3h	17048	0.00117264	0.008739606	0.624464367	56.568683995	112.6204429	chr15	51730381	51730850 intergenic
ENSMUSG00000082303	Gm13633	18291	0.001370573	0.009918541	0.624546591	49.0631494	100.1353853	chr2	70843906	70844713 intergenic
ENSMUSG00000025202	Scd3	13836	2.46081E-05	0.00343555	0.625386178	202.3423551	338.6845096	chr19	44254648	44256245 intergenic
ENSMUSG00000102286	Gm37004	17955	0.000283977	0.002736799	0.625441638	122.9209563	217.430392	chr2	78971978	78973512 promoter
ENSMUSG00000081984	Dnajb3	17054	0.000579365	0.004908046	0.626330028	80.8477294	149.582292	chr1	88205009	88205729 promoter
ENSMUSG00000090069	E430024P14R	7824	2.01581E-11	1.29018E-09	0.627300961	657.3250333	1042.26655	chr17	7937233	7939566 intron
ENSMUSG00000077473	Gm24790	17093	0.000191727	0.0030101	0.627566005	108.0423568	194.4159668	chr13	5408710	5409777 intergenic
ENSMUSG00000029178	Klf3	11208	4.43425E-09	1.74476E-07	0.628522648	467.722487	750.5431347	chr5	64810762	64813577 promoter
ENSMUSG00000023066	Rtn	18170	0.000432851	0.003867996	0.628693731	89.84655836	164.2070351	chr18	89157931	89159336 intergenic
ENSMUSG00000066406	Akap13	17536	0.000464475	0.004091244	0.631542373	84.75272193	155.8922858	chr7	75594886	75595972 intron
ENSMUSG00000088672	Gm23664	17214	1.61197E-08	5.62422E-07	0.631608425	452.7415029	731.0489006	chr10	127142489	127146205 intergenic
ENSMUSG00000056145	A104432	3506	6.50753E-17	7.97295E-15	0.631771951	1468.666835	2316.761299	chr3	107038464	107043777 promoter
ENSMUSG00000056413	Adap1	17241	0.000138255	0.001500944	0.632303279	157.9374148	277.2226709	chr5	139303960	139305137 promoter
ENSMUSG00000027763	Mbnl1	3842	7.10118E-31	5.83273E-28	0.63261465	3316.77625	5189.336435	chr3	60495063	60507345 promoter
ENSMUSG00000050953	Gja1	8147	7.67841E-12	5.14845E-10	0.633985741	730.8325333	1165.093431	chr10	56377337	56380231 promoter
ENSMUSG00000033773	Rpap2	19101	0.000699574	0.005720738	0.634495951	77.23141595	149.0657702	chr5	107646329	107647157 intron
ENSMUSG00000083355	Gm11581	13585	2.75742E-05	0.000377218	0.635390903	170.2074682	290.0621183	chr1	60834037	60834994 intergenic
ENSMUSG00000024712	Rfk	8840	7.42755E-07	1.66197E-05	0.636119383	281.724408	463.5065491	chr19	17394097	17396269 promoter
ENSMUSG00000037935	Smarc1	18504	0.000424728	0.00381095	0.636226302	89.30332866	166.1136597	chr11	99204182	99205241 intergenic
ENSMUSG00000036256	Igfbp7	19416	0.000204156	0.0002080939	0.636730867	109.68911	196.4329886	chr5	77366295	77367771 intron
ENSMUSG00000028525	Pde4b	18946	0.000814274	0.006464675	0.638139269	62.77659749	124.5263122	chr4	102618292	102619179 intergenic
ENSMUSG000000096935	1700113A16R	17905	0.000748076	0.006053707	0.638483631	66.91385881	131.6730879	chr3	88178279	88179274 promoter
ENSMUSG00000062866	Phactr2	18032	8.87504E-05	0.001036131	0.638485849	103.1543995	235.9542488	chr10	13422665	13424444 intron
ENSMUSG00000082286	Psd-ps1	19276	0.000631498	0.005268188	0.638731294	69.0474316	133.038658	chr11	3103976	31047447 intergenic
ENSMUSG00000097035	Gm26692	17191	0.00015339	0.001631826	0.639307149	116.8653269	207.4543453	chr5	107675662	107677313 intron
ENSMUSG00000052681	Rap1b	9922	2.76639E-06	5.16909E-05	0.640637153	239.0738233	399.7551593	chr10	117909549	117910494 intergenic
ENSMUSG00000027380	Acox1	17728	0.001241344	0.009134231	0.641726331	39.37414243	91.63664056	chr2	128092462	128093063 intron
ENSMUSG000000091996	BC049352	19148	0.000649493	0.005396937	0.642748048	67.15134547	130.9725707	chr9	45209038	45209841 intron
ENSMUSG00000058869	Gm4832	6696	2.39042E-08	7.93307E-07	0.64315092	376.6136105	614.5525421	chr17	88110793	88112370 intergenic
ENSMUSG00000038642	Ctss	19305	0.000768144	0.0001678062	0.643156698	60.98811373	122.1276985	chr3	95541564	95542830 intron
ENSMUSG000000042842	Serpinb6b	15908	0.000152073	0.001620436	0.643217015	111.9132211	200.0867751	chr13	32981006	32981824 intergenic
ENSMUSG000000100837	1700063D05R	18400	0.000708139	0.005780346	0.643708799	60.04860271	119.0163012	chr9	41232487	41233541 intergenic
ENSMUSG00000046020	Pofut1	16781	1.44417E-13	1.33032E-11	0.643745334	889.7488052	1422.823203	chr2	153258300	153263012 promoter
ENSMUSG00000027189	Trim44	8568	4.61765E-09	1.8133E-07	0.647544117	420.4530392	685.5243057	chr2	102399358	102401641 promoter
ENSMUSG00000020644	Id2	18315	0.000271956	0.002638535	0.64764302	40.9632622	167.1221706	chr12	25250362	25251386 intergenic
ENSMUSG00000025558	Dock9	12430	7.57699E-07	1.68774E-05	0.647841327	312.4841566	519.7567734	chr14	121828703	121831434 intergenic
ENSMUSG000000080948	Gm14481	17322	0.001080102	0.008						

ENSMUSG000000011256	Adam19	12793	9.06862E-07	1.97754E-05	0.658342004	286.138502	481.4525523	chr11	46081138	46083821	intron
ENSMUSG000000022110	Smg9	13856	1.58358E-06	3.17893E-05	0.658395795	230.2219427	389.9767091	chr7	24397564	24399477	promoter
ENSMUSG000000019817	Plagl1	18282	1.16738E-05	0.000179698	0.658657088	173.6597693	300.8245468	chr10	13057387	13060017	promoter
ENSMUSG00000022892	App	17978	0.000348678	0.003228502	0.658740682	84.24883823	161.8697532	chr16	85172676	85174107	promoter
ENSMUSG000000051335	Gfod1	11744	7.67471E-07	1.70565E-05	0.660171813	269.1604579	455.3771299	chr13	43267097	43269058	intron
ENSMUSG00000074813	Gm14005	18357	9.11635E-05	0.00105899	0.660568177	121.506472	220.8239156	chr2	128297071	128298550	intron
ENSMUSG00000030766	Arhgap17	18716	0.000825152	0.006535242	0.661396741	20.98020332	58.70883515	chr7	123361555	123361796	intron
ENSMUSG00000026073	Il1r2	13154	0.000702645	0.005745023	0.661940643	50.47241593	108.0944101	chr1	40109712	40109995	intron
ENSMUSG000000047898	Ccr4	11984	9.11024E-09	3.36942E-07	0.66281249	380.8755383	631.7353616	chr9	114494738	114496587	promoter
ENSMUSG000000474343	Mettl21c	17136	0.000690938	0.005665747	0.663267696	45.2486952	97.63864068	chr1	44032676	44033092	intergenic
ENSMUSG00000107666	RP24-44P18.3	9188	1.60903E-05	0.00237772	0.663509174	180.7572942	317.7865717	chr6	134342013	134342881	intron
ENSMUSG00000056031	9330154J02Ri	5595	5.73527E-13	4.81104E-11	0.66543374	907.1297591	1479.802736	chr9	85842385	85845346	promoter
ENSMUSG00000021209	Ppp4r	17772	0.000128492	0.001406417	0.665453341	113.2831416	210.6516071	chr12	103532477	103534076	promoter
ENSMUSG00000103196	Gm37641	17747	2.39038E-06	4.56604E-05	0.666228709	24.61071907	368.5009177	chr13	85427237	85430113	intergenic
ENSMUSG00000085996	A830012C17R	19374	0.000423824	0.003084575	0.666701517	74.78025383	149.6926893	chr1	4137363	4138801	promoter
ENSMUSG00000074813	Gm14005	17498	0.000330816	0.003087771	0.666960146	82.94195627	163.9726396	chr2	128332495	128333474	intron
ENSMUSG00000026471	Mr1	17983	9.36272E-05	0.001081237	0.668283182	107.4138066	197.2084387	chr1	155122226	155124194	intergenic
ENSMUSG00000039942	Ptger4	17065	0.00040799	0.00393011	0.669532554	66.7380005	135.6212671	chr15	5430758	5431328	intergenic
ENSMUSG00000031843	Mphosph6	13811	1.33519E-06	2.74174E-05	0.669567389	27.8338192	390.9606873	chr8	117784394	117786591	intergenic
ENSMUSG00000099300	Mir6356	19366	0.000328612	0.00307429	0.670144801	9.179905459	39.81565284	chr18	68828577	68828842	intergenic
ENSMUSG00000040323	Gm15429	17159	0.000152478	0.001623003	0.67035212	93.78567901	177.2086146	chr1	161735086	161736304	intergenic
ENSMUSG00000043740	B430306N03R	17698	0.000703869	0.00575264	0.671476697	44.246663256	68.64764809	chr17	48332921	48333220	intergenic
ENSMUSG00000032021	Crtam	17959	8.00453E-06	0.00012874	0.671525329	180.1851541	315.0199672	chr9	40992001	40994158	intron
ENSMUSG00000045594	Glb1	19080	0.000364376	0.003340907	0.673016116	70.20214738	142.7680428	chr9	114439076	114440582	intron
ENSMUSG00000031453	Rasa3	18836	2.68851E-05	0.000368558	0.673131972	142.9393667	256.260732	chr8	13684215	13686499	intergenic
ENSMUSG00000022110	Sucn2	17712	7.73114E-05	0.000921426	0.674525556	112.8697962	208.659118	chr14	73523721	73525251	promoter
ENSMUSG00000045441	Gprin3	16972	2.22199E-08	7.42433E-07	0.674852942	369.3245734	622.4870342	chr6	59310381	59313629	intergenic
ENSMUSG00000074281	Gm12522	13593	1.12387E-12	8.93068E-11	0.675814316	643.7755976	1058.132865	chr3	108382144	108386869	promoter
ENSMUSG00000018581	Dnah11	17998	0.000667099	0.005502309	0.676032742	24.17795361	65.60894895	chr12	117966863	117967317	intron
ENSMUSG00000049608	Gpr55	18990	0.00058371	0.004932138	0.676353328	41.49065113	92.865946	chr1	85957626	85958432	intron
ENSMUSG00000050898	Slc1a2	18180	2.37829E-05	0.000333451	0.676622271	138.8021054	249.0784919	chr2	102699294	102701366	intron
ENSMUSG00000068522	Aard	19289	0.000595707	0.004766091	0.676723538	42.6283028	95.28909242	chr15	52040070	52041080	promoter
ENSMUSG00000032372	Plscr2	13099	0.000011944	0.000183069	0.677637636	170.0263917	302.2650496	chr9	92274753	92276577	promoter
ENSMUSG00000045594	Glb1	19260	0.00055882	0.004737103	0.678755683	45.95593739	102.4726672	chr9	114451919	114452648	intron
ENSMUSG00000019817	Plagl1	17582	1.99726E-05	0.00287597	0.682106663	145.6673615	263.0149841	chr10	13060497	13062008	promoter
ENSMUSG00000064043	Trerf1	17602	1.23638E-05	0.000188643	0.682828699	150.4213267	269.0047178	chr17	47225582	47227354	intron
ENSMUSG00000033854	Kcnk10	10301	6.47978E-08	1.95614E-06	0.682843973	287.3785382	489.6814371	chr12	98571898	98574340	intron
ENSMUSG00000031628	Casp3	12392	2.39705E-07	6.12086E-06	0.68423302	252.1416571	433.1994866	chr8	46641630	46643682	intergenic
ENSMUSG00000004637	Wwox	17391	0.000111162	0.0001240843	0.685091059	113.814525	216.6794746	chr8	114973365	114974606	intron
ENSMUSG00000079602	9230102004R	17449	2.39063E-09	9.90054E-08	0.685151133	394.1021668	664.7135671	chr2	9879818	9884221	promoter
ENSMUSG00000027434	Nkx2-2	19457	0.000261173	0.002555297	0.686420288	64.71202963	131.5381579	chr2	147177961	147178901	intron
ENSMUSG00000026730	Pter	17817	2.83994E-05	0.000386519	0.68722224	127.4544989	233.0636464	chr2	12976056	12977373	promoter
ENSMUSG00000061731	Ext1	17585	4.42404E-05	0.000562652	0.688541263	128.105331	237.6400789	chr15	52899730	52901068	intergenic
ENSMUSG00000004231	Pax2	17269	0.000257581	0.000257478	0.688740551	68.6170221	139.8774399	chr19	44725750	44726631	intergenic
ENSMUSG00000032841	Prr5l	17332	0.000129248	0.001413907	0.688764894	84.46404299	163.7518451	chr2	101737953	101739328	intron
ENSMUSG00000030671	Pde3b	19633	0.000355084	0.003275509	0.689036747	51.04977382	109.2869164	chr7	114465610	114466386	intron
ENSMUSG00000039168	Dap	17748	0.0004025274	0.003814115	0.690333922	48.8999176	96.16276373	chr15	31221404	31222334	promoter
ENSMUSG00000098565	Gm27760	11322	9.70464E-05	0.001110962	0.69139157	89.07105981	171.3906099	chr15	5554479	5555059	intergenic
ENSMUSG00000054892	Tkk	19507	4.97158E-05	0.000624866	0.692151245	106.9781793	201.0094215	chr5	72751329	72752763	promoted
ENSMUSG00000029992	Gfpt1	17028	1.26539E-05	0.000192623	0.692212105	156.6409685	283.1129391	chr6	87075122	87077532	promoter
ENSMUSG00000028111	Ctsk	17922	0.000209037	0.002788156	0.692422216	55.5491827	117.0728775	chr3	95511048	95511705	intergenic
ENSMUSG00000098108	Gm27008	17381	0.000267040	0.002602153	0.692703049	59.00148931	122.8172841	chr3	107063488	107064046	intron
ENSMUSG000000040732	Erg	17203	7.04095E-06	0.000115439	0.694602222	171.0616588	307.0854751	chr16	95360439	95362366	intron
ENSMUSG00000019850	Tnfafp3	17969	8.88633E-06	0.00014093	0.695208858	150.0762376	271.9443861	chr10	18987650	18989339	intergenic
ENSMUSG0000004698	Hdac9	17300	0.000104032	0.001177253	0.696056938	83.45105778	162.7801332	chr12	34559993	34560917	intergenic
ENSMUSG00000039153	Runx2	18910	0.000377154	0.003438877	0.696662548	42.99045595	97.08531977	chr17	44568429	44569266	intron
ENSMUSG00000074740	Mpp7	13979	0.000100186	0.001143578	0.696945508	87.13562767	170.6028934	chr18	7608277	7608887	intron
ENSMUSG000000101969	Gm20125	18612	0.000431565	0.003858249	0.698269934	21.82917606	62.63248161	chr10	17012195	17012488	intron
ENSMUSG000000022449	Adams20	13218	1.12008E-05	0.000173859	0.69882197	141.3490236	258.2668221	chr15	94090770	94092231	intergenic
ENSMUSG000000098108	Gm27008	12906	3.08292E-06	5.65335E-05	0.699384012	178.1079914	318.1681636	chr3	107061201	107062718	intron
ENSMUSG000000027720	Il2	13796	1.92294E-06	3.78312E-06	0.699932968	184.3565436	328.758863	chr3	37124375	37125873	promoter
ENSMUSG00000029875	Ccdc184	17264	3.53367E-07	8.62119E-06	0.701822715	311.0066337	544.6028904	chr15	98167822	98170458	promoter
ENSMUSG00000030068	Gm20696	17499	7.45042E-05	0.000892285	0.702833123	112.8133861	220.5772537	chr6	99341278	99342325	intron
ENSMUSG000000051980	Casr	18810	0.000062766	0.000768037	0.704268921	14.062016024	176.3227672	chr16	36532072	36533587	intron
ENSMUSG000000097097	Gm17173	10914	4.78033E-11	2.82987E-09	0.705749978	467.9376918	796.3239885	chr14	45034597	45038136	intergenic
ENSMUSG00000030029	Lrig1	17029	5.48259E-07	1.27301E-05	0.710198988	202.0313943	359.4720501	chr6	94683992	94685003	intron
ENSMUSG00000032589	Bsn	19653	7.29088E-05	0.000877218	0.710818473	84.9337985	167.6386925	chr9	108144885	108146177	intron
ENSMUSG00000037999	Arap2	17723	0.000158095</td								

ENSMUSG00000105826	RP23-41J13.2	17049	4.22406E-05	0.000544241	0.723730757	90.84247948	179.5949619	chr5	105500952	105501736	intergenic
ENSMUSG00000037868	Egr2	4726	1.14898E-31	1.13249E-28	0.725645338	1896.549232	3174.744723	chr10	67537509	67542801	promoter
ENSMUSG00000020212	Mdm1	19219	0.000044181	0.00056226	0.727842636	84.67924774	169.5821161	chr10	118171155	118172441	intergenic
ENSMUSG0000074999	Gm10797	18193	0.00022681	0.002275374	0.728822328	35.78011082	87.90925589	chr10	67607075	67607649	intergenic
ENSMUSG00000091996	BC049352	17370	3.31263E-05	0.000444231	0.729023688	101.0183061	199.2990587	chr9	45207642	45208584	intron
ENSMUSG00000039942	Ptger4	18087	3.58245E-05	0.000472696	0.729215415	95.12668917	188.4017003	chr15	5446972	5448469	intergenic
ENSMUSG00000105826	RP23-41J13.2	9692	5.87912E-11	3.37887E-09	0.729956492	425.8014264	739.8897688	chr5	105495587	105497690	promoter
ENSMUSG00000098108	Gm27008	17879	3.10257E-09	1.24311E-07	0.731182206	309.3375986	544.4175603	chr3	107076882	107080170	intron
ENSMUSG00000068466	Gm5518	17477	3.60962E-08	1.15514E-06	0.738091944	236.9795965	426.08951	chr19	29150461	29153633	intergenic
ENSMUSG00000097415	AU020206	17147	1.00389E-05	0.000157812	0.738864162	122.6611877	238.573657	chr7	75773418	75774656	intron
ENSMUSG00000037138	Af3	18428	0.000193566	0.001986349	0.739920066	31.6599136	82.05445211	chr1	38647777	38648330	intron
ENSMUSG00000027274	Mkks	19371	0.000144027	0.001552322	0.740711241	45.97300149	106.9496345	chr2	136889892	136890727	promoter
ENSMUSG00000035227	Spcs2	17949	3.4495E-06	6.20438E-05	0.74216124	133.4707823	253.5063938	chr7	99835562	99837293	intergenic
ENSMUSG00000090326	Dthd1	11263	2.54959E-07	4.64017E-06	0.744973763	254.8303095	469.8560113	chr5	62854599	62856608	intron
ENSMUSG00000037935	Smarce1	12896	2.51470E-08	3.81749E-07	0.747057719	245.2092686	443.7043214	chr11	99198483	99200098	intergenic
ENSMUSG00000035181	Heatr5a	8239	2.10741E-11	1.33288E-09	0.750125463	392.7322462	692.9913414	chr12	51866649	51867897	intergenic
ENSMUSG00000079414	Gm11110	6707	6.66782E-21	1.85131E-18	0.750146241	1097.665188	1885.772427	chr17	57103081	57107719	promoter
ENSMUSG00000003746	Man1a	17018	2.11846E-07	5.48047E-06	0.751280929	187.5936399	346.7784643	chr10	54024430	54026637	intron
ENSMUSG00000068015	Lrch1	17365	1.73578E-08	6.00305E-07	0.752617236	241.7506258	439.348683	chr14	74881283	74883453	intron
ENSMUSG00000028977	Casz1	17032	1.91576E-08	6.53382E-07	0.754003168	243.8619167	444.9704259	chr4	148902117	148904270	promoter
ENSMUSG00000021830	Txndc16	13759	2.06417E-06	0.000040368	0.755863374	151.5589784	291.0228984	chr14	45101034	45102282	intergenic
ENSMUSG00000022377	Asap1	17402	1.04651E-05	0.000163859	0.757449021	107.9518185	217.1101319	chr15	64246644	64248088	intron
ENSMUSG00000098900	Gm5597	19379	0.000171805	0.001305387	0.757851041	38.4050322	95.28909242	chr7	76229188	76230099	intergenic
ENSMUSG00000036256	Igfbp7	17228	2.4661E-06	4.67894E-05	0.758264422	134.8459206	260.0249157	chr5	77373239	77374916	intron
ENSMUSG00000100729	Gm29010	19471	5.50192E-05	0.000682952	0.761301651	59.74285967	132.0914788	chr2	128503084	128504012	intergenic
ENSMUSG00000097924	A730020E08R	17229	1.82466E-07	4.82795E-06	0.762761328	181.8096254	340.7015314	chr6	61179396	61181872	promoter
ENSMUSG00000053702	Neb1	19302	0.000124374	0.001368181	0.762935206	23.23844295	70.82456729	chr2	17386791	17387292	intron
ENSMUSG00000094452	Gm22623	16271	4.58034E-07	1.08264E-05	0.763002281	161.8765355	306.9750779	chr10	30505018	30506247	intergenic
ENSMUSG00000079604	Gm13219	17217	2.50909E-05	0.000349496	0.763349138	78.51601601	165.7198015	chr2	9359067	9360071	intron
ENSMUSG00000032841	Prsl	17462	2.97898E-05	0.000403606	0.763551547	79.94234663	170.9595926	chr2	101736752	101737757	intron
ENSMUSG00000037940	Inpp4b	18065	0.000115588	0.001282985	0.766352067	29.3113604	80.16009387	chr8	81562687	81563249	intron
ENSMUSG00000094614	Gm21769	19381	0.000116717	0.001294792	0.766654143	24.82878569	73.96049732	chr8	19980020	19980746	intergenic
ENSMUSG00000051331	Cacna1c	18983	3.09074E-05	0.000417313	0.766819885	70.1509551	150.7012002	chr6	11908862	119090299	intron
ENSMUSG00000026971	Itgb6	17324	2.8629E-06	5.29918E-05	0.767014732	135.7920216	266.7423687	chr2	60694902	60695895	intron
ENSMUSG00000051335	Fgod1	13609	3.58936E-05	0.000473291	0.767142355	65.47046409	142.3005864	chr13	43261659	43262066	intron
ENSMUSG00000052767	Gm12703	17181	2.09842E-05	0.000300845	0.767496882	79.87409026	167.5405616	chr4	95035829	95036499	intron
ENSMUSG00000032440	Tgfbr2	19442	3.80776E-05	0.000497431	0.768041326	72.8277576	158.7092905	chr9	116113349	116114229	intron
ENSMUSG000000100160	Gm28527	19511	3.53433E-05	0.000466972	0.768811597	65.9402196	143.9114837	chr1	46907080	46908538	intergenic
ENSMUSG00000035678	Ftsf9	17532	1.8178E-06	3.59422E-05	0.769381978	142.3108165	276.78642771	chr17	57109183	57111034	intergenic
ENSMUSG00000068466	Gm5518	17479	5.40465E-07	1.25639E-06	0.770076648	169.1997008	323.3088491	chr19	29185987	29187989	intergenic
ENSMUSG00000100824	Gm29375	18167	4.19989E-05	0.00054197	0.771395222	59.47124482	132.5712016	chr9	25185594	25186550	intergenic
ENSMUSG00000068466	Gm5518	17461	6.81621E-06	0.000112348	0.771729562	111.4093374	224.7856958	chr19	29184024	29185657	intergenic
ENSMUSG00000018189	Uch15	19396	0.000101796	0.00115877	0.772503195	34.2238959	95.64615155	chr1	143854254	143855007	intergenic
ENSMUSG00000028284	Map3k7	17205	4.35977E-05	0.000556993	0.772507079	58.83747684	132.6938652	chr4	31941867	31942680	intergenic
ENSMUSG00000019792	Trmt11	11494	1.27596E-14	1.4052E-12	0.776052326	557.5519813	993.5556253	chr10	30535941	30540572	intron
ENSMUSG00000032324	Tspan3	17438	6.82487E-08	2.0477E-06	0.777626078	195.4377533	368.3523867	chr9	56175032	56177038	intergenic
ENSMUSG00000019489	Cd70	13236	2.08811E-10	1.08323E-08	0.779343407	312.8804379	570.8255091	chr17	57148023	57150233	promoter
ENSMUSG00000074305	Peak1	13985	8.82195E-06	0.000140022	0.780522698	95.14375326	197.4782986	chr9	56379436	56380385	intron
ENSMUSG000000102712	Gm37758	19462	2.17069E-05	0.000309182	0.78054517	6.361372395	42.23879927	chr9	33186760	33187108	intergenic
ENSMUSG000000100211	1700064M15F	10759	1.19128E-07	3.32632E-06	0.7805443	173.4786927	330.7513521	chr12	99640744	99641417	intergenic
ENSMUSG00000084754	Gm12532	17761	3.0871E-09	1.24196E-07	0.781090221	265.8039129	492.5584389	chr3	37190056	37193229	intergenic
ENSMUSG00000090326	Dthd1	15874	3.51387E-06	6.30291E-05	0.78112026	122.5194572	247.7115872	chr5	62857153	62858170	intron
ENSMUSG00000059994	Fcr1	19626	4.76353E-05	0.000601945	0.782414889	50.77815897	120.1106767	chr3	87381161	87382133	intron
ENSMUSG00000085585	Gm12223	17361	1.46377E-08	5.16194E-07	0.782669064	248.9661887	465.6217019	chr11	54247459	54250107	promoter
ENSMUSG00000047293	Gpr15	17163	5.3927E-07	1.25509E-05	0.783316767	146.3916677	285.3752882	chr16	58702169	58703376	intergenic
ENSMUSG000000102541	Gm38135	13553	3.74858E-05	1.19379E-06	0.783469092	205.0139398	387.3205018	chr1	38721692	38723556	promoter
ENSMUSG000000103912	Gm33819	17921	7.80972E-05	0.000929668	0.783580882	20.148294686	66.53159534	chr3	15228282	15228690	intergenic
ENSMUSG00000097868	A330069E16R	10459	1.13451E-06	2.38683E-05	0.78411202	132.2937846	262.3621976	chr2	91237178	91238180	promoter
ENSMUSG00000037225	Fgf2	17227	1.43922E-09	6.29078E-08	0.78798154	269.5790211	501.3801129	chr3	37365922	37368410	promoter
ENSMUSG00000021932	Rnash2b	13726	2.36954E-06	4.53943E-05	0.788238075	112.9630345	228.5117458	chr14	62352544	62353433	intron
ENSMUSG00000087185	Gm13872	18774	7.87697E-13	1.46495E-11	0.789350774	406.3380919	737.6287544	chr2	102733634	102737973	intron
ENSMUSG00000084754	Gm12532	18420	7.20532E-06	0.000117679	0.789580066	87.96753632	185.0313747	chr3	37161409	37163082	intergenic
ENSMUSG000000106321	RP23-105M18	17491	2.50674E-06	0.000047378	0.790448449	110.6456581	225.4984794	chr3	21951265	21952968	intergenic
ENSMUSG000000106828	RP24-89O12.2	18849	2.04957E-07	5.33022E-06	0.79172704	162.2045604	315.0199672	chr5	77384444	77387906	promoter
ENSMUSG00000035506	Slc1a28	17041	2.53549E-06	6.4327E-05	0.791727555	152.9682449	298.5867304	chr16	33607095	33608833	intron
ENSMUSG00000048490	Nrip1	17299	3.16968E-06	0.000057802	0.795986158	99.28101458	204.9821334	chr16	76224245	76226080	intergenic
ENSMUSG000000106508	RP23-329L9.3	17836	2.94738E-05	0.000399598	0.79738014	55.00595857	130.1112561	chr3	85887703	85888721	promoter

ENSMUSG000000084647	Gm24382	17409	1.28955E-06	2.66707E-05	0.816255276	106.7065645	223.0875993	chr3	60123299	60124457	intergenic
ENSMUSG00000037940	Inpp4b	18854	3.99318E-05	0.000518903	0.817190926	30.75453076	93.33340237	chr8	81639659	81640293	intron
ENSMUSG00000022982	Sod1	18483	3.45148E-05	0.000459413	0.817452894	36.97417259	100.024988	chr16	90185851	90186333	intergenic
ENSMUSG00000106321	RP23-105M18	13892	1.71303E-07	4.58194E-06	0.818841544	138.2588757	278.3157117	chr3	21962594	21963824	intergenic
ENSMUSG00000030671	Pde3b	17642	5.48663E-06	9.29193E-05	0.819087273	77.08968538	170.3698326	chr7	114466672	114467723	intron
ENSMUSG00000035799	Twist1	18680	2.57474E-05	0.000356933	0.820411884	43.53368565	111.2058074	chr12	34076439	34077414	intergenic
ENSMUSG00000005087	Cd44	17130	6.64662E-08	2.00038E-06	0.821577987	177.7287742	353.6036453	chr2	102955603	102957009	intergenic
ENSMUSG00000062785	Kcn3	17894	1.45683E-07	3.97764E-06	0.826394302	176.8286092	357.1347682	chr7	44590937	44593937	promoter
ENSMUSG00000074813	Gm14005	17352	1.49822E-05	0.000222733	0.826451155	51.80820827	126.2489414	chr2	128368078	128368646	intron
ENSMUSG00000024251	Thada	17954	4.54275E-06	7.91089E-05	0.828865061	87.2602941	196.6183187	chr17	84433895	84434934	intron
ENSMUSG00000033713	Foxn3	17377	1.18446E-09	5.34306E-08	0.831158887	218.1329659	423.9007591	chr12	99326525	99329248	intron
ENSMUSG00000050930	Map10	12909	4.09188E-06	7.22142E-05	0.833918477	73.52978196	165.7320679	chr8	125669870	125670409	promoter
ENSMUSG00000060974	Olfpr530	19257	1.05738E-07	2.98627E-06	0.834202005	138.0436709	281.2063145	chr7	140374790	140376976	promoter
ENSMUSG00000054720	Lrrc8c	17153	1.33211E-09	5.91438E-08	0.837042331	207.6513963	406.6798058	chr5	105512146	105515683	intergenic
ENSMUSG00000028634	Hivep3	17192	3.86423E-09	1.53271E-07	0.84102734	186.3090399	369.719567	chr4	119957655	119959390	intron
ENSMUSG00000069520	Tmem19	10091	1.50756E-06	3.05745E-05	0.842404911	94.16489624	207.6764745	chr10	115332629	115332989	intergenic
ENSMUSG00000077188	Gm25090	18624	1.51386E-05	0.000227562	0.842423126	42.24908559	111.1199429	chr2	159133470	159134054	intergenic
ENSMUSG00000038679	Trps1	17204	1.51991E-06	2.43507E-05	0.848063506	88.78238087	195.2159496	chr15	50360930	50361748	intergenic
ENSMUSG00000039910	Cited2	17700	2.80533E-06	5.21713E-05	0.850155647	51.74698335	164.1457033	chr10	17751991	17753079	intergenic
ENSMUSG00000027763	Mbnl1	12836	9.1663E-08	2.62257E-06	0.852086187	133.685987	279.5831508	chr3	60482027	60483123	intron
ENSMUSG00000045441	Gprin3	9854	1.14935E-14	1.28007E-12	0.852376853	542.6340358	1036.312281	chr6	59313818	59315989	intergenic
ENSMUSG00000087185	Gm13872	17733	8.32226E-07	1.82285E-05	0.852547331	101.3923055	223.7649185	chr2	102739137	102740834	intron
ENSMUSG00000028023	Pitx2	19548	2.47235E-06	0.000046863	0.852618532	72.6808922	166.6915133	chr3	129213954	129215351	promoter
ENSMUSG00000033713	Foxn3	17692	3.62236E-08	1.15733E-06	0.853369417	142.1074581	293.4447102	chr12	99324454	99326170	intron
ENSMUSG00000056671	Prelid2	17458	1.45092E-06	2.96086E-05	0.853875838	81.66257402	183.1370165	chr18	41888793	41890111	intron
ENSMUSG00000022283	Pabpc1	19663	6.43358E-06	0.000106665	0.860694884	51.4192695	129.3112733	chr15	36688704	36689526	intergenic
ENSMUSG00000035506	Slc12a8	19705	1.88881E-07	4.94478E-06	0.863800576	112.5076431	242.6948999	chr16	33605205	33606726	intron
ENSMUSG00000015396	Cd83	9226	3.29249E-19	6.83208E-17	0.863898899	556.906367	1053.398304	chr13	43775443	43778036	intergenic
ENSMUSG00000069520	Tmem19	9418	5.64717E-15	6.54839E-13	0.865327997	401.0119867	770.1368342	chr10	115330046	115332432	intergenic
ENSMUSG00000030067	Foxp1	19460	1.92231E-07	5.01913E-06	0.865420029	107.6290114	232.7311196	chr6	99048278	99050426	intron
ENSMUSG00000090326	Dthd1	12224	5.56532E-09	2.15539E-07	0.866567954	184.7865931	380.8129116	chr5	62858875	62860604	intron
ENSMUSG00000074813	Gm14005	19085	4.70148E-06	8.15129E-05	0.866634272	57.03192899	142.0661909	chr2	128288333	128289262	intron
ENSMUSG00000088156	Gm26350	17529	5.60044E-06	9.45218E-05	0.867821587	54.64380543	140.369429	chr15	10073920	10074959	intergenic
ENSMUSG00000035799	Twist1	17133	1.06409E-06	2.27018E-05	0.87033531	93.14006475	212.9766227	chr12	34075085	34076225	intergenic
ENSMUSG00000103196	Gm37641	17917	6.49667E-07	1.47886E-05	0.871284846	89.66548179	203.2104388	chr13	85430406	85431890	intergenic
ENSMUSG00000015396	Cd83	19015	4.16456E-10	2.06268E-08	0.872786132	197.0729884	398.734382	chr13	43766527	43769089	intergenic
ENSMUSG00000098108	Gm27008	18829	1.58777E-07	4.27009E-06	0.872795949	109.1117521	237.3688843	chr3	107064927	107067355	intron
ENSMUSG00000084754	Gm12532	11542	1.91507E-12	1.46325E-10	0.873198327	292.8345278	577.4298956	chr3	37173600	37175891	intergenic
ENSMUSG00000102173	Gm37872	14187	4.14238E-14	4.20921E-12	0.875507489	346.3458993	675.0194708	chr13	52082372	52085792	intergenic
ENSMUSG00000097259	Gm26766	17858	4.47683E-07	1.06199E-05	0.879082488	93.13486496	211.6123873	chr15	37134998	37136238	intergenic
ENSMUSG00000039942	Ptger4	13708	1.45721E-09	6.35529E-08	0.879459749	191.3858122	394.4918102	chr15	5510978	5512513	intergenic
ENSMUSG00000007892	Rplp1	17284	2.12437E-07	3.38599E-06	0.880808204	110.8661077	242.3869062	chr9	6177730	61779403	intergenic
ENSMUSG00000087518	Gm13561	18647	2.32968E-08	7.74424E-07	0.883797683	173.014154	368.806242	chr2	62460565	62463428	intron
ENSMUSG00000073274	Gm14636	14010	2.21067E-08	7.41147E-08	0.886652003	129.335252	276.9010762	chrX	19166578	19167934	promoter
ENSMUSG00000047959	Kcn3	16686	1.07512E-38	3.14129E-35	0.887274563	1616.329846	3044.801192	chr3	107033358	107038254	promoter
ENSMUSG00000019256	Ahr	13705	3.76108E-08	1.19584E-06	0.887794035	123.2437634	266.5325059	chr12	35533983	35535054	promoter
ENSMUSG00000098108	Gm27008	13699	4.78750E-08	8.26423E-05	0.888336971	41.58118942	113.7148184	chr3	107063028	10706325	intron
ENSMUSG00000087422	Gm13564	17429	5.57489E-08	1.71715E-06	0.891382358	114.5506776	251.3408409	chr2	62458431	62459897	promoter
ENSMUSG000000027684	Mecom	17389	1.82194E-09	7.72387E-08	0.891602439	168.5095227	352.9767262	chr3	30507573	30510181	promoter
ENSMUSG000000101585	1600010M07f	17609	8.89789E-08	2.55319E-06	0.893603333	109.3098928	243.1010245	chr7	110165093	110166251	intergenic
ENSMUSG00000044072	Eml6	18838	7.35648E-07	1.64981E-05	0.893674986	72.4091437	172.5463171	chr11	29798260	29799887	intron
ENSMUSG000000747813	Gm14005	18705	2.10198E-06	4.10506E-05	0.898250555	57.73395335	150.0129493	chr2	128333931	128334865	intron
ENSMUSG000000109194	Pdhx	13640	1.14096E-11	7.47942E-10	0.899373829	228.9937528	466.3235538	chr2	102999586	103001137	intergenic
ENSMUSG00000030638	Sh3gl3	19313	3.53885E-07	8.62316E-06	0.900380171	96.72887855	228.1928204	chr7	82236155	82238004	intron
ENSMUSG00000030102	Itp1	17194	1.25854E-08	4.49448E-07	0.900575977	135.4744708	294.5881511	chr6	108328596	108330065	intron
ENSMUSG00000059994	Fcrl1	18676	4.87971E-06	8.39386E-05	0.903003713	34.35378019	104.4858199	chr3	87382481	87383319	intron
ENSMUSG00000019817	Plagl1	19424	3.40215E-06	6.13610E-05	0.903553886	40.56820421	114.1209429	chr10	13056082	13056993	intergenic
ENSMUSG00000058298	Mcm9	17654	2.57848E-08	4.89994E-07	0.904552381	132.1861822	292.4103319	chr10	53526722	53529225	intergenic
ENSMUSG000000053702	Neb1	18673	1.79655E-06	3.55576E-05	0.905468966	54.24752411	142.0293918	chr2	17388745	17389800	promoter
ENSMUSG00000053333	Dis3l2	17542	4.61504E-06	8.01535E-05	0.905705855	35.52556006	110.4794228	chr1	86887380	86887934	intron
ENSMUSG00000074813	Gm14005	17903	1.56827E-07	2.42899E-06	0.905761494	104.1899293	239.2747142	chr2	128295458	128296892	intron
ENSMUSG00000035799	Twist1	18679	3.41719E-06	0.000061575	0.905977238	38.68918216	110.3076937	chr12	34040044	34040870	intergenic
ENSMUSG00000004698	Hdac9	17822	1.14571E-06	2.40783E-05	0.910395197	67.9609722	174.9817299	chr12	34561249	34562494	intergenic
ENSMUSG00000027763	Mbnl1	4936	1.30296E-09	5.82434E-08	0.915377883	1369.732321	2953.601882	chr3	60472363	60476330	intergenic
ENSMUSG00000045441	Gprin3	18440	5.87188E-07	1.35383E-06	0.916315366	76.38244321	191.120574	chr6	59316262	59317584	intergenic
ENSMUSG00000088156	Gm26350	17576	7.85146E-08	2.29638E-06	0.917382584	95.46656039	220.9233811	chr15	10072526	10076685	intergenic
ENSMUSG000000100211	1700064M15f	12935	2.00139E-08	6.80232E-07	0.918693263	126.9283333	285.1680947	chr12	99639777	99640504	intergenic
ENSMUSG00000032324	Tspan3</td										

ENSMUSG00000019792	Trmt11	17113	2.99549E-12	2.21993E-10	0.94033949	216.6331611	457.7989417	chr10	30550397	30552919 intron
ENSMUSG00000053333	Dis3l2	18860	2.99649E-07	7.43953E-06	0.940677746	64.24227412	163.6169151	chr1	86885696	86887162 intron
ENSMUSG00000064043	Trerf1	17285	1.3489E-09	5.97548E-08	0.942532234	135.893034	302.4981105	chr17	47234719	47236791 intron
ENSMUSG00000005917	Otx1	18776	5.80572E-10	2.78463E-08	0.946933146	148.9949961	330.0876339	chr11	21998836	22001597 promoter
ENSMUSG000000043705	Capn13	18696	2.6314E-07	6.62489E-06	0.950602631	66.4663852	172.054328	chr17	73390750	73392329 intron
ENSMUSG00000019945	1700040L02Ri	17771	1.12313E-08	4.04018E-07	0.951430351	103.4182759	242.0543798	chr10	68443806	68445330 intron
ENSMUSG000000106321	RP23-105M18	13738	2.65915E-11	1.66412E-09	0.958587317	176.5347124	385.8554662	chr3	21960638	21961902 intergenic
ENSMUSG00000083110	Gm14073	17100	5.35793E-09	2.08325E-07	0.959089027	107.6119473	250.7139219	chr2	140099435	140101094 intergenic
ENSMUSG000000042659	Arrdc4	17120	2.7783E-07	6.94311E-06	0.961851252	55.83786721	150.9723948	chr7	68748187	68749220 promoter
ENSMUSG00000003746	Man1a	17688	9.69727E-14	9.27972E-12	0.961869694	248.4518694	529.9400136	chr10	54006219	54009551 intron
ENSMUSG00000020213	Dnajc15	17704	4.97017E-08	1.55272E-06	0.967022117	78.3178753	196.5569869	chr14	77859818	77861314 intron
ENSMUSG00000101969	Gm20125	17629	7.98052E-07	0.000017617	0.968893703	39.84389794	127.5899788	chr10	17010984	17011945 intron
ENSMUSG00000050953	Gja1	18247	2.13287E-07	5.51052E-06	0.969953255	57.77329935	156.2616113	chr10	56392174	56393339 intergenic
ENSMUSG00000035506	Slc12a8	18370	8.90026E-09	3.29808E-07	0.971446113	102.7845079	247.9963828	chr16	33601650	33603477 intron
ENSMUSG00000003746	Man1a	17439	4.99802E-09	1.95877E-09	0.972685711	102.5522391	243.7527463	chr10	54004117	54005911 intron
ENSMUSG00000058503	Fam133b	17267	6.78263E-10	3.20638E-08	0.973177726	140.573525	323.5568456	chr5	3539114	3541833 promoter
ENSMUSG00000026700	Tnfsf4	16962	9.80752E-14	9.33988E-12	0.974780883	229.8768537	496.3730227	chr1	161374699	161377084 intergenic
ENSMUSG00000065812	Gm24696	17395	1.00033E-11	6.66201E-10	0.981151923	182.5680599	407.640586	chr15	61546979	61548856 intergenic
ENSMUSG0000028362	Tnfsf8	16958	3.83905E-15	4.5978E-13	0.983507168	267.1226412	573.8769093	chr4	63840518	63842308 intron
ENSMUSG0000002565	Scin	17175	9.01684E-11	5.00701E-09	0.985286259	144.4391715	330.529223	chr12	40132357	40134560 promoter
ENSMUSG00000056671	Prelid2	18021	1.58288E-07	4.26254E-06	0.986722414	54.39447249	151.5747811	chr18	41887093	41888007 intron
ENSMUSG00000098565	Gm27760	18585	5.22244E-08	1.62126E-06	0.987561708	67.4570851	177.8845991	chr15	5759192	5760828 intergenic
ENSMUSG00000019792	Trmt11	17085	9.28444E-13	7.44E-11	0.988458964	237.8233514	528.9179016	chr10	30532499	30535653 intron
ENSMUSG00000097186	Gm26595	18043	1.11032E-08	4.0122E-07	0.997808505	80.45144815	203.9736225	chr17	5826090	5827545 intergenic
ENSMUSG00000102805	Gm37240	17139	5.17832E-09	2.0254E-07	0.997844122	89.81243017	222.9158703	chr3	85885925	85887447 promoter
ENSMUSG00000074813	Gm14005	17523	5.32722E-18	9.54696E-16	1.000158721	334.2398584	715.7332374	chr2	128372601	128377758 intron
ENSMUSG00000040265	Dnm3	17768	2.23191E-09	9.26267E-08	1.003443475	80.1494749	249.0662255	chr1	162294554	162296764 promoter
ENSMUSG00000019945	1700040L02Ri	12304	7.12999E-09	2.68232E-07	1.003764899	85.14900325	215.9789574	chr10	68541529	68542094 promoter
ENSMUSG00000022665	Ccdc80	17470	1.75296E-07	4.66345E-06	1.006119739	43.7659545	134.0717016	chr16	45123201	45124272 intron
ENSMUSG00000051980	Casr	19625	3.58014E-07	8.69154E-06	1.007187239	27.81133123	98.5858198	chr16	36477198	36477902 intergenic
ENSMUSG00000022657	Cd96	9350	3.27947E-21	9.64899E-19	1.007735624	561.9333577	1200.9090098	chr16	46118200	46121528 promoter
ENSMUSG00000040437	Als2cl	19319	2.59046E-09	1.06387E-07	1.010029657	92.8120398	231.5876787	chr9	110905285	110907499 intergenic
ENSMUSG00000040613	Apobec1	19251	3.67649E-07	8.90356E-06	1.010257875	17.43736399	81.21767024	chr6	122576024	122576805 intergenic
ENSMUSG00000031129	Slc9a9	18330	8.74857E-08	0.000002514	1.010894457	49.91212214	144.2440101	chr9	95277154	95278228 intergenic
ENSMUSG00000089107	Gm23117	17423	1.51334E-07	4.11483E-06	1.018254597	39.23214116	128.8012623	chr13	43898872	43899644 intergenic
ENSMUSG00000035834	Polr3g	17544	7.04634E-08	2.09826E-06	1.039139538	7.210345133	59.39708604	chr13	81684707	81684953 intron
ENSMUSG00000026100	Mstn	17958	1.2942E-09	5.79833E-08	1.041821771	85.89037361	223.3219948	chr1	53048642	53050253 intergenic
ENSMUSG000000102860	Gm37638	17011	9.52869E-11	5.27638E-09	1.044286973	115.2356378	286.9139219	chr1	161703604	161705237 intergenic
ENSMUSG00000088156	Gm26350	17137	1.34493E-07	6.39256E-06	1.048714548	21.35942055	88.93003318	chr15	10073183	10073497 intergenic
ENSMUSG00000026700	Tnfsf4	6337	1.20919E-47	3.40525E-44	1.060697787	1447.52262	3104.322276	chr1	161395450	161400221 promoter
ENSMUSG00000102286	Gm37004	18325	2.27414E-08	7.57266E-07	1.065551124	46.18820624	145.9285055	chr2	79122802	79123676 intergenic
ENSMUSG00000093116	Gm22698	18719	3.05631E-09	1.23209E-07	1.071188549	68.90570104	194.7116941	chr13	98572300	98574072 intergenic
ENSMUSG00000030790	Adm	17223	7.52062E-17	1.11469E-14	1.073015196	230.906903	536.3604046	chr7	110627682	110630294 promoter
ENSMUSG00000094452	Gm22623	13076	1.4004E-16	2.01504E-16	1.073852389	236.0007394	550.8011523	chr10	30503098	30504824 intergenic
ENSMUSG00000015396	Cd83	9848	8.80398E-13	7.08379E-11	1.07514831	160.139244	394.688072	chr13	43774493	43775158 intergenic
ENSMUSG00000031843	Mphosph6	16283	1.97584E-15	2.43435E-13	1.075584687	216.5203409	512.3129358	chr8	11781737	117783678 intergenic
ENSMUSG00000035799	Twist1	17064	1.50818E-16	2.15428E-14	1.08601454	213.5600773	503.6915274	chr12	33956650	33959740 promoter
ENSMUSG000000805105	Gm14424	18942	1.42604E-09	6.27489E-08	1.087180988	66.95320481	190.9352442	chr2	74751962	74753716 promoter
ENSMUSG00000005087	Cd44	17309	1.41768E-09	6.25205E-08	1.09776698	68.75875266	201.9675324	chr2	102829315	102830358 intron
ENSMUSG00000022377	Asap1	17312	4.67225E-12	3.37378E-10	1.099571027	139.6458603	362.9159738	chr15	64233367	64235648 intertron
ENSMUSG00000032324	Tspan3	17296	2.41381E-16	3.35093E-14	1.102460237	206.2591939	496.3103563	chr9	56172405	56174779 intergenic
ENSMUSG00000030102	Itp1	18178	1.57564E-09	6.81155E-08	1.125947286	51.1573762	163.2475896	chr6	108323404	108324515 intron
ENSMUSG00000029581	Fscn1	13718	5.953E-18	1.0294E-15	1.126085679	266.83918	645.294474	chr5	142960215	142962712 promoter
ENSMUSG00000074305	Peak1	17372	8.99922E-15	1.01955E-12	1.129917715	153.7830894	388.9927309	chr9	56376968	56378640 intertron
ENSMUSG00000057337	Chst3	17387	3.44002E-10	1.72272E-08	1.135817752	63.7895827	193.5927859	chr10	60161124	60162195 intergenic
ENSMUSG00000065812	Gm24696	17069	5.49488E-11	3.1953E-09	1.145836799	80.52492234	234.3556179	chr15	61545541	61546442 intergenic
ENSMUSG00000103196	Gm37641	17773	6.2891E-09	2.39801E-07	1.154344441	13.67931991	80.61528389	chr13	8545898	85459417 intergenic
ENSMUSG00000053702	Neb1	18777	9.26228E-10	4.29617E-08	1.161475128	44.03756935	152.6446239	chr2	17390227	17390993 promoter
ENSMUSG00000030102	Itp1	13596	2.69424E-31	2.41415E-28	1.165444271	454.4958585	1080.8134249	chr6	108324727	108328343 intron
ENSMUSG00000022657	Cd96	18090	5.55112E-10	2.67553E-08	1.168503719	51.10168399	173.0505726	chr16	46116645	46117673 intron
ENSMUSG00000085643	Gm12519	18882	1.62216E-09	6.98202E-08	1.171176388	50.08975545	64.51457349	chr4	55983511	55983920 intron
ENSMUSG00000031453	Rasa3	17014	1.33186E-09	5.91438E-08	1.183260811	35.34448349	142.2269882	chr8	13686819	13687181 intergenic
ENSMUSG00000031129	Slc9a9	11016	1.13357E-17	1.83165E-15	1.184369448	176.0085468	456.7536317	chr9	95278841	95279974 intergenic
ENSMUSG00000074813	Gm14005	17138	5.23278E-20	1.2735E-17	1.19008225	220.5381536	561.4531835	chr2	128377992	128380688 intron
ENSMUSG00000005227	Spcs2	16986	4.55856E-14	4.53853E-12	1.222134848	101.1600366	294.6508176	chr7	99834146	99835191 intergenic
ENSMUSG00000074813	Gm14005	19125	7.22597E-20	1.73714E-17	1.233322934	220.1025263	588.4293889	chr2	128392698	128396048 intron
ENSMUSG00000025810	Nrp1	17612	1.97688E-12	1.4988E-10	1.250269125	65.77620712	217.9837129	chr8	128506315	128507965 intergenic
ENSMUSG000000096393	Gm590	18157	1.23144E-13	1.15597E-11	1.276794636	82.70968742	268.6489933	chr9	110907780	110909611 intergenic
ENSMUSG00000005087	Cd44	17313	1.35756E-12	1.06197E-10	1.292504866	54.33806239	196.0772641	chr2	102830735	102831642 intron
ENSMUSG000000059422	Gm8116	18896	3.69344E-11	2.25414E-09	1.30					

Table S3: Histone H3 lysine 9 acetylation (H3K9Ac) in the gene loci of differentially expressed transcripts between wild-type (WT) and LDHA-deficeint (KO) Th1 cells

Log2 FoldChange (Log2FC) of KO to WT
p_adj (FDR corrected p value), p<0.01

Ensembl ID	Gene	log2FC_RNAseq	p_adj_RNAseq	log2FC_ChIPseq	p_adj_ChIPseq	annotation_ChIPseq
ENSMUSG00000063229	Ldha	-3.944942913	3.0855E-141	-0.206700751	0.006017211	promoter
ENSMUSG00000032661	Oas3	-2.44710952	6.33023E-13	-0.562066033	0.001820638	promoter
ENSMUSG00000041324	Inhba	-2.315116811	1.34052E-60	-0.889360187	2.25937E-11	promoter
ENSMUSG00000035105	Egln3	-2.192556125	2.08202E-25	-0.75900479	0.000220815	intergenic
ENSMUSG00000035105	Egln3	-2.192556125	2.08202E-25	-0.732051372	1.71742E-24	promoter
ENSMUSG00000027456	Sdcbp2	-2.085251598	9.36646E-19	-0.754690496	1.24563E-23	promoter
ENSMUSG00000027456	Sdcbp2	-2.085251598	9.36646E-19	-0.73086083	4.45221E-08	promoter
ENSMUSG00000079227	Ccr5	-2.081421438	6.78664E-08	-0.766426806	3.59932E-15	promoter
ENSMUSG00000079227	Ccr5	-2.081421438	6.78664E-08	-0.810421664	3.0551E-11	promoter
ENSMUSG00000010142	Tnfrsf13b	-2.075543704	1.83963E-15	-0.516422265	3.01944E-05	intergenic
ENSMUSG00000010142	Tnfrsf13b	-2.075543704	1.83963E-15	-0.470105814	3.64923E-10	promoter
ENSMUSG00000003882	Il7r	-2.02669661	1.75267E-08	-0.603129627	3.45311E-05	promoter
ENSMUSG00000003882	Il7r	-2.02669661	1.75267E-08	-1.313484228	4.0812E-17	intergenic
ENSMUSG00000086373	Gm11978	-2.023535034	2.50925E-19	-0.847673602	3.32437E-19	promoter
ENSMUSG00000055170	Ifng	-2.02207524	2.5488E-172	-0.57641756	4.94424E-05	promoter
ENSMUSG00000024074	Crim1	-1.961438311	2.66981E-08	-0.551703144	0.000174091	promoter
ENSMUSG00000024074	Crim1	-1.961438311	2.66981E-08	-0.565547516	0.001363844	intron
ENSMUSG00000030921	Trim30a	-1.908524537	1.82682E-08	-1.18190795	1.05036E-12	promoter
ENSMUSG00000030921	Trim30a	-1.908524537	1.82682E-08	-0.859057994	2.07428E-07	intron
ENSMUSG00000021886	Gpr65	-1.833981342	9.44013E-12	-0.430299473	2.97589E-05	promoter
ENSMUSG00000024402	Lta	-1.773435612	2.56913E-13	-0.603967409	0.000168507	intergenic
ENSMUSG00000027580	Helz2	-1.721652811	4.03752E-20	-0.515149586	2.39295E-13	promoter
ENSMUSG00000028364	Tnc	-1.697518509	7.0387E-06	0.44147103	0.008973164	intergenic
ENSMUSG00000017830	Dhx58	-1.69497974	0.000547404	-0.680164407	3.74277E-09	promoter
ENSMUSG000000078763	Slfn1	-1.681608284	0.00019574	-0.504950891	1.05344E-07	promoter
ENSMUSG000000078763	Slfn1	-1.681608284	0.00019574	-0.504950891	1.05344E-07	promoter
ENSMUSG00000030282	Cmas	-1.661223236	2.22611E-07	-0.358773942	0.003230315	promoter
ENSMUSG000000050473	Slc35d3	-1.641758714	0.001009387	-0.666276305	1.88229E-09	promoter
ENSMUSG00000001131	Timp1	-1.636417441	1.28023E-13	-0.703610875	2.101E-05	promoter
ENSMUSG000000027087	Itgav	-1.626293014	4.23196E-18	-0.34902799	2.20748E-06	promoter
ENSMUSG000000020715	Ern1	-1.624330967	2.03495E-05	-0.58991697	0.003228463	intron
ENSMUSG000000020401	Fam71b	-1.585892554	7.37162E-18	-0.312639259	0.000259099	promoter
ENSMUSG000000020401	Fam71b	-1.585892554	7.37162E-18	-0.437370363	6.09895E-07	promoter
ENSMUSG000000020401	Fam71b	-1.585892554	7.37162E-18	-0.262176127	5.59747E-07	promoter
ENSMUSG000000039234	Sec24d	-1.583593459	4.80517E-06	-0.592998742	2.94584E-05	promoter
ENSMUSG000000022372	Sla	-1.562449812	2.51016E-17	-0.950955577	1.29668E-27	promoter
ENSMUSG000000026420	Il24	-1.548926109	0.003112897	-1.284243419	5.14659E-18	promoter
ENSMUSG000000030717	Nupr1	-1.5052195	0.004164829	-0.533212006	0.000236413	promoter
ENSMUSG00000034422	Parp14	-1.502717361	1.5536E-06	-0.642928999	5.20993E-12	promoter
ENSMUSG00000032845	Alpk2	-1.497896507	0.000505342	-0.330561766	0.003228463	promoter
ENSMUSG00000028613	Lrp8	-1.490525846	0.001170482	-0.949321136	3.50006E-10	promoter
ENSMUSG000000096938	9530052E02Rik	-1.457508833	7.32743E-07	-0.357103776	2.51496E-07	promoter
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.681991487	1.54114E-10	intergenic
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.54580047	0.000898006	intergenic
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.525651964	0.008571121	intergenic
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-1.048456559	1.28061E-11	intron
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-1.45810356	9.30256E-16	intron
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.843963185	2.8266E-06	intergenic
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.923169199	6.20949E-05	intron
ENSMUSG000000072663	Spf2	-1.452337061	0.004456004	-0.923876285	3.5924E-10	intergenic
ENSMUSG000000030500	Slc17a6	-1.449052488	2.97255E-05	-0.71532677	1.40412E-05	intron
ENSMUSG000000097567	Gm26637	-1.441796345	1.13117E-06	-0.342010879	0.003454229	promoter
ENSMUSG000000026107	Nabp1	-1.429601113	2.85479E-06	-0.675098593	4.45173E-08	promoter
ENSMUSG000000026107	Nabp1	-1.429601113	2.85479E-06	-0.353013422	0.008745271	promoter
ENSMUSG000000073700	Klh121	-1.422273924	7.93687E-05	-0.335488742	0.000332378	promoter
ENSMUSG000000028063	Lmna	-1.409473505	1.1341E-06	-0.618004523	2.36886E-06	promoter
ENSMUSG000000028063	Lmna	-1.409473505	1.1341E-06	-0.655555787	9.48738E-06	promoter
ENSMUSG000000028063	Lmna	-1.409473505	1.1341E-06	-0.599985463	1.66226E-06	promoter
ENSMUSG000000034163	Zfc3h1	-1.40647365	5.88052E-29	0.277909801	4.87725E-05	promoter
ENSMUSG000000028362	Tnfsf8	-1.397376753	4.16917E-25	0.325762967	0.004093239	intron
ENSMUSG000000028362	Tnfsf8	-1.397376753	4.16917E-25	0.983507168	4.5978E-13	intron
ENSMUSG000000026509	Capn2	-1.395011313	3.38124E-09	-0.603049757	5.81904E-14	promoter
ENSMUSG000000069874	Irgm2	-1.38842734	0.004905093	-0.440323239	0.004907158	intron
ENSMUSG000000069874	Irgm2	-1.38842734	0.004905093	-0.559707189	0.002449441	intergenic
ENSMUSG000000022565	Plec	-1.386131888	1.14665E-54	-0.474294815	9.60123E-16	promoter
ENSMUSG000000022565	Plec	-1.386131888	1.14665E-54	-0.445342572	1.05261E-06	promoter
ENSMUSG000000045827	Serpinb9	-1.385336993	4.01492E-08	-0.588067486	2.6859E-05	intergenic
ENSMUSG000000045827	Serpinb9	-1.385336993	4.01492E-08	-0.29827387	0.006874345	promoter

ENSMUSG00000079084	Ccdc82	-1.381797498	0.003874129	-0.397459308	1.85679E-08	intergenic
ENSMUSG00000079084	Ccdc82	-1.381797498	0.003874129	-0.424842534	0.005392171	promoter
ENSMUSG00000069833	Ahnak	-1.37295579	8.96129E-27	-0.224112364	0.000602875	promoter
ENSMUSG00000053158	Fes	-1.369142417	0.000525275	-0.345651099	0.002374728	promoter
ENSMUSG00000033863	Klf9	-1.368600689	0.002227103	-0.596735199	3.64809E-06	promoter
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.375221709	0.006053707	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.553514878	0.004767865	promoter
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.55652486	0.000461464	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.561118781	0.005193006	intergenic
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.534908499	0.000565974	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.477307084	2.66707E-05	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.632092199	9.89923E-07	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.597750161	9.98837E-05	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.593459683	1.97663E-09	intron
ENSMUSG00000057329	Bcl2	-1.357479508	7.75512E-12	-0.886077637	1.99524E-18	intron
ENSMUSG000000027002	Nckap1	-1.350446672	1.23202E-05	-0.418080292	0.002133425	promoter
ENSMUSG00000075602	Ly6a	-1.350382178	7.16384E-09	-0.79135349	7.5168E-19	promoter
ENSMUSG0000000282	Mnt	1.348735768	1.86272E-05	-0.784517424	2.40191E-21	promoter
ENSMUSG0000000282	Mnt	1.348735768	1.86272E-05	-0.580814608	2.07358E-08	promoter
ENSMUSG00000026728	Vim	-1.28416451	5.86714E-63	-0.601110584	2.90088E-12	promoter
ENSMUSG00000052040	Klf13	-1.276961987	1.00557E-12	-0.389220015	0.001562765	promoter
ENSMUSG00000014444	Piezo1	-1.272990821	3.62724E-28	-0.275770211	0.001580798	promoter
ENSMUSG00000071176	Arhgef10	-1.21149689	3.73053E-08	-0.528680148	0.001359012	intron
ENSMUSG00000071176	Arhgef10	-1.21149689	3.73053E-08	-0.620830549	7.34548E-21	promoter
ENSMUSG00000071176	Arhgef10	-1.21149689	3.73053E-08	-0.478340366	0.00347087	intron
ENSMUSG00000020484	Xbp1	-1.207620556	2.87002E-12	-0.695661408	7.00309E-23	promoter
ENSMUSG00000036002	Fam214b	-1.184515282	0.005852475	-0.353075718	0.000304706	promoter
ENSMUSG00000025743	Sdc3	-1.175141449	0.00197977	-0.62092305	1.64309E-07	promoter
ENSMUSG00000025743	Sdc3	-1.175141449	0.00197977	-0.465309349	0.003313074	promoter
ENSMUSG00000024197	Plin3	-1.167442037	0.001030969	-0.394544805	0.000813999	promoter
ENSMUSG00000072621	Slfn10-ps	-1.160358602	0.001580966	0.488351343	0.001853732	intergenic
ENSMUSG00000072621	Slfn10-ps	-1.160358602	0.001580966	0.33153403	0.002676726	promoter
ENSMUSG00000072621	Slfn10-ps	-1.160358602	0.001580966	0.446448204	0.008110684	intergenic
ENSMUSG00000072621	Slfn10-ps	-1.160358602	0.001580966	0.509203278	0.005663343	intergenic
ENSMUSG0000000275	Trim25	-1.15729693	1.10112E-07	-0.557453146	2.02286E-13	promoter
ENSMUSG00000085438	170002014Rik	-1.152751497	0.000232259	-0.284973413	0.008822093	promoter
ENSMUSG00000022498	Txndc11	-1.149512166	0.000120662	-0.420777776	1.45366E-05	promoter
ENSMUSG000000051391	Ywhag	-1.145479901	4.97496E-16	-0.295210234	0.001394619	promoter
ENSMUSG00000026581	Sell	-1.133418948	1.41753E-05	-0.263970603	0.001070214	intron
ENSMUSG00000026581	Sell	-1.133418948	1.41753E-05	-0.450491879	8.93068E-11	promoter
ENSMUSG00000038608	Dock10	-1.129810014	1.83607E-16	-0.32658854	4.39012E-05	promoter
ENSMUSG00000035778	Ggt1	-1.119835318	0.000250623	-0.318103311	0.000112611	promoter
ENSMUSG00000035778	Ggt1	-1.119835318	0.000250623	-0.324782374	0.006449406	promoter
ENSMUSG00000035778	Ggt1	-1.119835318	0.000250623	-0.426040605	0.00016953	promoter
ENSMUSG00000041920	Slc16a6	-1.105781603	2.38313E-05	-0.439143746	5.86589E-08	promoter
ENSMUSG00000034168	Irf2bp1	-1.099201708	0.000132614	-0.268077488	0.000119429	promoter
ENSMUSG00000027514	Zbp1	-1.08044189	0.000530787	-0.463898851	4.19723E-06	promoter
ENSMUSG00000020571	Pdia6	-1.068244009	1.48891E-08	-0.321535967	0.001577276	promoter
ENSMUSG00000026011	Ctla4	-1.04995448	3.14951E-09	-0.663087991	4.63E-06	intron
ENSMUSG00000018983	E2f2	-1.04672581	0.001929716	-0.548997498	1.25248E-22	promoter
ENSMUSG00000033880	Lgals3bp	-1.036096819	0.005880215	-0.720376444	4.0812E-17	promoter
ENSMUSG00000032265	Fam46a	-1.035982633	2.8303E-07	-0.434725291	2.24104E-07	promoter
ENSMUSG00000040033	Stat2	-1.032966553	0.000594409	-0.525959635	0.000880679	promoter
ENSMUSG000000050931	Sgms2	-1.03204745	0.006473028	-0.367067177	0.009250263	promoter
ENSMUSG00000030671	Pde3b	-1.024886805	9.21334E-10	0.689036747	0.003275509	intron
ENSMUSG00000030671	Pde3b	-1.024886805	9.21334E-10	0.819087273	9.29193E-05	intron
ENSMUSG00000019189	Rnf145	-1.023208406	1.63106E-05	-0.59920564	3.74769E-06	intron
ENSMUSG00000019189	Rnf145	-1.023208406	1.63106E-05	-0.544776248	0.000216306	intron
ENSMUSG00000019189	Rnf145	-1.023208406	1.63106E-05	-0.244673811	0.006240625	promoter
ENSMUSG000000052681	Rap1b	-1.004439345	8.1523E-14	-0.377799537	0.005828804	intron
ENSMUSG000000052681	Rap1b	-1.004439345	8.1523E-14	0.640637153	5.16909E-05	intergenic
ENSMUSG000000052681	Rap1b	-1.004439345	8.1523E-14	-0.453920576	0.004178095	intron
ENSMUSG00000027951	Adar	-0.985896027	1.89816E-06	-0.580792598	8.69339E-11	promoter
ENSMUSG00000019823	Mical1	-0.98148062	1.52915E-06	-0.471082079	2.72666E-09	promoter
ENSMUSG00000026770	Il2ra	-0.954248779	3.31848E-37	-0.528772089	2.24385E-06	intergenic
ENSMUSG00000026770	Il2ra	-0.954248779	3.31848E-37	0.442595046	7.47969E-18	promoter
ENSMUSG00000026770	Il2ra	-0.954248779	3.31848E-37	-0.524127126	4.35911E-06	promoter
ENSMUSG00000064215	Ifi27	-0.949055892	0.001537634	-0.485310326	0.002065864	promoter
ENSMUSG00000049109	Themis	-0.924120469	0.003847072	-0.492259671	9.86339E-07	promoter
ENSMUSG00000030275	Etnk1	-0.911287258	0.000557481	-0.23913624	0.004081449	promoter
ENSMUSG00000023764	Sfi1	-0.9110167	5.52799E-12	0.414340422	0.000605127	promoter
ENSMUSG00000027863	Cd2	-0.909799146	9.63216E-10	-0.846465947	3.95698E-28	promoter
ENSMUSG00000027863	Cd2	-0.909799146	9.63216E-10	-0.417043867	0.000211464	intergenic
ENSMUSG00000027863	Cd2	-0.909799146	9.63216E-10	-0.310169017	3.52261E-08	promoter
ENSMUSG00000042506	Usp22	-0.8851266	0.000798072	-0.402932909	0.001725515	promoter
ENSMUSG00000052949	Rnf157	-0.878815351	0.002471015	-0.215894866	0.002371011	promoter

ENSMUSG00000052949	Rnf157	-0.878815351	0.002471015	-0.542261031	1.19693E-07	intron
ENSMUSG00000052949	Rnf157	-0.878815351	0.002471015	-0.462792203	0.000465449	intron
ENSMUSG00000037111	Setd7	-0.877732586	0.002935416	-0.444758405	0.000559326	promoter
ENSMUSG00000052125	F730043M19Rik	-0.872973828	0.002053884	-0.254288031	0.004407265	promoter
ENSMUSG00000053835	H2-T24	-0.866333493	2.88572E-07	-0.671384781	1.74968E-23	promoter
ENSMUSG00000032115	Hyou1	-0.847141776	4.50656E-09	-0.221280005	0.00469495	promoter
ENSMUSG00000042410	Agps	-0.845559279	0.002058212	-1.090204507	2.57505E-09	intron
ENSMUSG00000042410	Agps	-0.845559279	0.002058212	-1.054748323	2.26829E-11	promoter
ENSMUSG000000000184	Ccnd2	-0.844875479	1.18373E-36	-0.336747043	2.70631E-05	promoter
ENSMUSG00000091191	Gm17334	-0.843374827	1.29348E-07	-0.298717107	1.05565E-05	promoter
ENSMUSG00000026478	Lamc1	-0.829202748	3.60587E-08	-0.648411445	4.40184E-05	intron
ENSMUSG00000026478	Lamc1	-0.829202748	3.60587E-08	-0.569124614	7.03801E-11	promoter
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.454989102	2.79594E-09	promoter
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.650111815	0.000306926	intron
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.771865892	1.10909E-08	intron
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.559091247	0.000183069	intron
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.489524965	5.65438E-07	intron
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-1.057756148	7.85989E-16	intron
ENSMUSG00000041235	Chd7	-0.821356608	4.15458E-14	-0.944714003	3.061E-12	intron
ENSMUSG00000046711	Hmga1	-0.813853114	0.001356128	-0.548689622	6.40918E-06	intergenic
ENSMUSG00000046711	Hmga1	-0.813853114	0.001356128	-0.357361273	4.82091E-09	promoter
ENSMUSG00000040687	Madd	-0.812483477	0.000327078	-0.727404267	0.000349496	intron
ENSMUSG00000040687	Madd	-0.812483477	0.000327078	-0.82135952	0.000323104	intron
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.484704261	7.81936E-10	promoter
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.528554422	1.05565E-05	intron
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.459484138	4.21999E-10	promoter
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.618277502	4.94361E-06	intron
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.484704261	7.81936E-10	promoter
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.528554422	1.05565E-05	intron
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.459484138	4.21999E-10	promoter
ENSMUSG00000021990	Spata13	-0.80079907	0.006011689	-0.618277502	4.94361E-06	intron
ENSMUSG00000018341	Il12rb2	-0.793871396	4.33215E-06	-0.500572655	0.002969632	intron
ENSMUSG00000018341	Il12rb2	-0.793871396	4.33215E-06	-0.719649344	5.11582E-26	promoter
ENSMUSG00000018341	Il12rb2	-0.793871396	4.33215E-06	-0.59722346	8.59355E-05	intron
ENSMUSG00000028954	Nub1	-0.791864409	1.87188E-05	-0.439650992	4.50266E-06	promoter
ENSMUSG00000058013	Sept11	-0.788492254	7.52557E-08	-0.561728617	0.004785119	promoter
ENSMUSG00000020077	Srgn	-0.7848773	7.81909E-11	-0.214128849	0.001819364	promoter
ENSMUSG00000026749	Nek6	-0.782999401	0.000384498	-0.337026721	6.20275E-07	promoter
ENSMUSG00000026749	Nek6	-0.782999401	0.000384498	-0.729156603	3.57429E-06	intron
ENSMUSG00000020128	Vps54	-0.78088483	0.004872426	0.201113387	0.007923773	promoter
ENSMUSG00000040565	Btaf1	-0.768541451	0.001251625	-0.341121776	1.95146E-06	promoter
ENSMUSG00000040565	Btaf1	-0.768541451	0.001251625	-0.49012089	0.002356658	promoter
ENSMUSG00000039153	Runx2	-0.760204591	0.00842271	0.696666258	0.003438872	intron
ENSMUSG00000039153	Runx2	-0.760204591	0.00842271	0.545214646	0.008904533	promoter
ENSMUSG0000001228	Uhrf1	-0.750530844	0.000858133	-0.302036839	4.644E-05	promoter
ENSMUSG00000052013	Btla	-0.747283577	4.11084E-06	-0.67213827	6.3379E-09	intron
ENSMUSG00000039361	Picalm	-0.740243187	6.52196E-08	-0.416651475	0.000975535	intron
ENSMUSG00000039361	Picalm	-0.740243187	6.52196E-08	-0.753529532	2.27578E-05	intron
ENSMUSG00000039361	Picalm	-0.740243187	6.52196E-08	-0.583239963	4.355E-07	intron
ENSMUSG00000045817	Zfp3612	-0.735950346	3.88574E-05	-0.308457041	7.77907E-05	intergenic
ENSMUSG00000045817	Zfp3612	-0.735950346	3.88574E-05	-0.329618213	0.000215969	intron
ENSMUSG00000028634	Hivep3	-0.730924585	4.13245E-06	0.620345038	1.15281E-07	intron
ENSMUSG00000028634	Hivep3	-0.730924585	4.13245E-06	0.5826956	2.17356E-05	intron
ENSMUSG00000028634	Hivep3	-0.730924585	4.13245E-06	0.84102734	1.53271E-07	intron
ENSMUSG00000028634	Hivep3	-0.730924585	4.13245E-06	0.556653071	0.003441194	intron
ENSMUSG00000034928	Rnf44	-0.725430735	0.000316132	-0.307172721	0.00062338	promoter
ENSMUSG00000037944	Ccr7	-0.723187344	1.74028E-07	0.279837235	1.83494E-06	promoter
ENSMUSG00000037944	Ccr7	-0.723187344	1.74028E-07	0.343410472	0.001841394	promoter
ENSMUSG00000037944	Ccr7	-0.723187344	1.74028E-07	0.547524525	2.13426E-07	intergenic
ENSMUSG00000037944	Ccr7	-0.723187344	1.74028E-07	0.521730643	0.000350054	intergenic
ENSMUSG00000037944	Ccr7	-0.723187344	1.74028E-07	0.488784459	1.76644E-10	intergenic
ENSMUSG00000021298	Gpr132	-0.722596527	0.000965503	-0.356855056	0.004502658	intergenic
ENSMUSG00000021298	Gpr132	-0.722596527	0.000965503	-0.204405069	0.002002417	promoter
ENSMUSG000000074886	Grk6	-0.717808577	0.002394809	-0.250521712	0.00150329	promoter
ENSMUSG00000029992	Gfpt1	-0.697339657	0.004703966	0.692212105	0.000192623	promoter
ENSMUSG00000020340	Cyfip2	-0.693990761	2.14424E-11	-0.311827429	4.49557E-08	promoter
ENSMUSG00000032688	Malt1	-0.687169188	6.45269E-08	-0.295941446	8.91904E-05	promoter
ENSMUSG00000017639	Rab11fip4	-0.683687711	0.004303418	-0.439669639	2.63633E-05	intron
ENSMUSG00000017639	Rab11fip4	-0.683687711	0.004303418	-0.44896678	6.81323E-07	promoter
ENSMUSG00000026580	Selp	-0.682798979	0.000598859	-0.278782622	0.001828878	promoter
ENSMUSG00000034765	Dusp5	-0.682771039	1.19666E-06	0.430830286	2.12846E-05	intron
ENSMUSG00000034765	Dusp5	-0.682771039	1.19666E-06	-0.168955791	0.004946191	promoter
ENSMUSG00000025314	Ptprij	-0.674778612	0.002527598	-0.394303037	3.07069E-07	promoter
ENSMUSG00000025314	Ptprij	-0.674778612	0.002527598	-0.503481216	0.006576325	intron
ENSMUSG00000025314	Ptprij	-0.674778612	0.002527598	-0.550060699	6.7819E-05	intron
ENSMUSG00000025790	Slco3a1	-0.671804369	0.003161204	-0.251717139	0.002753743	promoter

ENSMUSG00000025790	Slco3a1	-0.671804369	0.003161204	-0.677152981	4.35919E-10	intergenic
ENSMUSG00000037679	Inf2	-0.670501808	0.00301248	-0.328010437	4.3105E-05	promoter
ENSMUSG00000011179	Odc1	-0.667914041	7.59874E-08	-0.602297116	0.004354218	intergenic
ENSMUSG00000040010	Slc7a5	-0.661831578	5.64406E-06	-0.535855808	2.65891E-21	promoter
ENSMUSG00000030208	Emp1	-0.660184271	0.001652557	-0.5608821	0.000104745	promoter
ENSMUSG00000026864	Hspa5	-0.651494177	5.37366E-17	-0.239474988	0.005438592	promoter
ENSMUSG00000090213	Tmem189	-0.651309134	0.001674421	-0.19630166	0.004423178	promoter
ENSMUSG00000090213	Tmem189	-0.651309134	0.001674421	-0.548295676	3.0551E-11	promoter
ENSMUSG00000052397	Ezr	-0.651191483	3.26089E-12	-0.595361006	2.50664E-21	promoter
ENSMUSG00000059248	Sept9	-0.641341935	0.000461488	-0.834184695	9.37812E-29	promoter
ENSMUSG00000059248	Sept9	-0.641341935	0.000461488	-0.276941565	0.000117186	promoter
ENSMUSG00000059248	Sept9	-0.641341935	0.000461488	-0.438330002	2.94584E-05	promoter
ENSMUSG00000059248	Sept9	-0.641341935	0.000461488	-0.343379779	0.000263341	intron
ENSMUSG00000014195	Dnajc7	-0.63434791	0.002273819	-0.602331563	2.47483E-06	intron
ENSMUSG00000014195	Dnajc7	-0.63434791	0.002273819	-0.710197195	3.01267E-13	promoter
ENSMUSG00000018340	Anxa6	-0.631758545	5.37438E-06	-0.3389961	0.00907258	intron
ENSMUSG00000018340	Anxa6	-0.631758545	5.37438E-06	-0.648865163	2.27087E-14	promoter
ENSMUSG00000018340	Anxa6	-0.631758545	5.37438E-06	-0.610548276	1.27957E-12	intron
ENSMUSG00000020272	Stk10	-0.63074621	0.002134737	-0.298891205	0.003238453	intron
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.43514609	0.004407265	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.893216689	1.72459E-09	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.640966699	1.00624E-08	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.690403257	3.8378E-09	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.82760383	3.2642E-09	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.760125171	2.38398E-08	intergenic
ENSMUSG00000030268	Bcat1	-0.621038053	0.00197977	-0.446218068	0.001450405	intergenic
ENSMUSG00000032578	Cish	-0.619894043	0.000189897	-0.330138887	0.002788997	intergenic
ENSMUSG00000015437	Gzmb	-0.615026738	0.008215458	-0.417675561	0.00546315	promoter
ENSMUSG00000003746	Man1a	-0.614150214	1.52915E-06	0.751280929	5.48047E-06	intron
ENSMUSG00000003746	Man1a	-0.614150214	1.52915E-06	0.961869694	9.27972E-12	intron
ENSMUSG00000003746	Man1a	-0.614150214	1.52915E-06	0.972685671	1.95877E-07	intron
ENSMUSG00000026305	Lrrkip1	-0.602910505	6.81938E-07	-0.668217921	1.28346E-05	intron
ENSMUSG00000026305	Lrrkip1	-0.602910505	6.81938E-07	-0.261572629	5.99867E-07	promoter
ENSMUSG0000002699	Lcp2	-0.600721086	2.9826E-05	-0.201178863	0.00063176	promoter
ENSMUSG00000035671	Zswim4	-0.599513927	0.00019341	-0.488537853	3.77637E-08	promoter
ENSMUSG00000025034	Trim8	-0.595932683	0.008643261	-0.742563484	3.78917E-11	intergenic
ENSMUSG00000025034	Trim8	-0.595932683	0.008643261	-0.676388755	3.29663E-11	intergenic
ENSMUSG00000025034	Trim8	-0.595932683	0.008643261	-0.611826917	1.82879E-33	promoter
ENSMUSG00000030530	Furin	-0.595428478	1.67388E-17	0.470453629	1.80765E-16	promoter
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.645195403	3.66392E-10	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.400273201	1.71297E-06	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.230865628	0.006292139	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.523140851	0.000665107	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.592715711	1.64981E-05	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.462293048	0.002732957	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.365809546	3.62688E-07	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.676199078	1.22575E-08	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.34875962	2.47426E-08	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.602747773	6.5087E-20	intron
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-0.176674765	0.00525897	promoter
ENSMUSG00000040270	Bach2	-0.591558524	2.86064E-05	-1.385730122	6.55582E-30	intron
ENSMUSG00000029777	Gars	-0.576080111	2.22035E-05	0.290019681	0.000169051	promoter
ENSMUSG00000020120	Plek	-0.569138442	0.000427806	-0.598145785	0.002114939	promoter
ENSMUSG00000028071	Sh2d2a	-0.552080185	0.006183847	-0.228404607	0.001671481	promoter
ENSMUSG00000006638	Abhd1	-0.542209098	0.002363254	-0.583594322	0.00054197	promoter
ENSMUSG00000032011	Thy1	-0.540752063	0.000665147	-0.195650792	0.006718651	promoter
ENSMUSG00000005763	Cd247	-0.530207704	6.35692E-10	-0.288705155	1.00911E-06	promoter
ENSMUSG00000020048	Hsp90b1	-0.523236808	3.4117E-05	-0.386147154	0.007467478	promoter
ENSMUSG00000034394	Lif	-0.522840956	0.002434841	-0.677177866	0.000111498	promoter
ENSMUSG00000034394	Lif	-0.522840956	0.002434841	-0.268241302	0.000680038	promoter
ENSMUSG00000031799	Tpm4	-0.521746377	0.000457941	-0.22440365	0.003050599	promoter
ENSMUSG00000022241	Tars	-0.517085553	0.002750331	0.370956499	0.00497919	promoter
ENSMUSG00000030096	Slc6a6	-0.507750716	0.007156779	-0.556808085	4.78756E-06	intron
ENSMUSG0000001847	Rac1	-0.502976447	0.005398342	-0.784916266	7.5353E-10	intron
ENSMUSG0000001847	Rac1	-0.502976447	0.005398342	-0.564164987	0.000327454	promoter
ENSMUSG0000001847	Rac1	-0.502976447	0.005398342	-0.549690243	0.000351512	promoter
ENSMUSG0000001847	Rac1	-0.502976447	0.005398342	-0.508987216	0.008449385	promoter
ENSMUSG00000022661	Cd200	-0.494624597	0.003745447	-0.629511196	4.11462E-05	intergenic
ENSMUSG00000007850	Hnrnph1	-0.476959469	0.002021702	0.412653382	9.34725E-06	promoter
ENSMUSG00000020437	Myo1g	-0.451710383	0.004726718	-0.188318931	0.003241493	promoter
ENSMUSG00000026358	Rgs1	-0.425430367	0.001242532	0.37673849	0.004058863	promoter
ENSMUSG00000026358	Rgs1	-0.425430367	0.001242532	-0.689591345	8.30498E-07	intergenic
ENSMUSG00000026358	Rgs1	-0.425430367	0.001242532	-0.722104858	0.001072896	intergenic
ENSMUSG00000026358	Rgs1	-0.425430367	0.001242532	0.357455383	0.005204957	intergenic
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.375669962	0.001656744	intergenic
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.555671262	8.0581E-14	intron

ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.367320999	2.28942E-09	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.392436993	5.47768E-06	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.416440154	8.21455E-13	promoter
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.946269347	5.14659E-18	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.311218686	4.06477E-08	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.318580868	0.000659216	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.871076878	1.8295E-11	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.570058166	8.10617E-09	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.447112955	1.72272E-08	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.698140834	6.88307E-07	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.520858859	1.58708E-05	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.541996994	2.3109E-05	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.599535478	9.09041E-09	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.579847068	8.74647E-07	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.357731988	0.00709658	intergenic
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.529483371	0.002158517	intergenic
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.479789638	0.000633358	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.844861941	1.32332E-09	intergenic
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.420015481	0.000326928	intron
ENSMUSG00000021108	Prkch	-0.412561073	0.006462224	-0.4089829	6.09192E-06	intron
ENSMUSG0000006782	Cnp	-0.411899282	0.000127284	-0.458496511	3.89034E-06	promoter
ENSMUSG0000005103	Wdr1	-0.408752516	0.003458463	-0.433617694	0.001050657	promoter
ENSMUSG0000005103	Wdr1	-0.408752516	0.003458463	-0.31677113	5.21713E-05	promoter
ENSMUSG0000021109	Hif1a	-0.391509132	0.000894473	-0.49670875	6.80103E-08	promoter
ENSMUSG0000021109	Hif1a	-0.391509132	0.000894473	-0.503485605	0.000355717	promoter
ENSMUSG0000085853	Gm12167	-0.37715381	1.59511E-06	-0.307344462	0.001231114	promoter
ENSMUSG0000097634	Gm26827	-0.362171781	2.63545E-09	-0.71627307	2.19535E-06	intron
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	0.242209261	0.000621575	promoter
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	1.292504866	1.06197E-10	intron
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	1.09776698	6.25205E-08	intron
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	0.931342056	7.30099E-09	intergenic
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	0.821577987	2.00038E-06	intergenic
ENSMUSG0000005087	Cd44	-0.35849585	0.000883397	0.590060593	0.000695898	intergenic
ENSMUSG00000090570	Gm17041	-0.335053511	5.1085E-07	-0.384462727	3.28827E-10	promoter
ENSMUSG00000028793	Rnf19b	-0.303880185	0.007654389	-0.629590278	0.000457969	intron
ENSMUSG00000028793	Rnf19b	-0.303880185	0.007654389	-0.761920939	0.000200419	intron
ENSMUSG00000031530	Dusp4	-0.284759993	0.008007565	-0.676292088	0.001089879	intergenic
ENSMUSG00000031530	Dusp4	-0.284759993	0.008007565	-0.458465945	0.006259432	intergenic
ENSMUSG00000020359	Phykpl	0.176284541	1.30663E-09	-0.468446676	9.49629E-10	promoter
ENSMUSG00000024014	Pim1	0.344163713	4.83723E-05	-0.319976801	0.00633119	promoter
ENSMUSG00000024014	Pim1	0.344163713	4.83723E-05	-0.304004276	0.000272785	intron
ENSMUSG00000061589	Dot1l	0.347786271	0.005964468	-0.422399421	1.06884E-07	promoter
ENSMUSG00000061589	Dot1l	0.347786271	0.005964468	0.176921168	0.00848985	promoter
ENSMUSG00000090069	E430024P14Rik	0.397315919	7.41664E-19	0.476660649	0.000633358	intron
ENSMUSG00000090069	E430024P14Rik	0.397315919	7.41664E-19	0.627300961	1.29018E-09	intron
ENSMUSG00000090069	E430024P14Rik	0.397315919	7.41664E-19	0.300197341	1.67413E-05	intron
ENSMUSG00000090069	E430024P14Rik	0.397315919	7.41664E-19	0.374018723	0.00028158	intron
ENSMUSG00000090069	E430024P14Rik	0.397315919	7.41664E-19	0.46101762	0.000768037	intron
ENSMUSG00000024858	Adrbk1	0.400120787	0.005420451	-0.430082667	0.006064274	promoter
ENSMUSG00000024858	Adrbk1	0.400120787	0.005420451	-0.237589652	0.000142066	promoter
ENSMUSG00000024590	Lmnb1	0.401992357	0.009095205	-0.481275175	0.001778281	intergenic
ENSMUSG00000085731	Gm16229	0.404267672	5.8031E-06	-0.231437859	0.000396694	promoter
ENSMUSG00000052926	Rnaseh2a	0.413987945	0.000137424	0.184829803	0.001939381	promoter
ENSMUSG00000058655	Eif4b	0.428726796	0.000360287	-0.502256448	4.35267E-05	intron
ENSMUSG00000032294	Pkm	0.430286426	8.86475E-11	-0.424824876	1.06648E-07	intron
ENSMUSG00000032724	Abtb2	0.440117921	0.009286648	-0.483195663	3.26783E-14	intron
ENSMUSG00000032724	Abtb2	0.440117921	0.009286648	-0.455949274	0.000477422	intron
ENSMUSG00000032724	Abtb2	0.440117921	0.009286648	-0.912975313	4.12344E-12	intron
ENSMUSG00000024608	Rps14	0.458594623	0.000349252	-0.598225772	2.69058E-07	intergenic
ENSMUSG00000024608	Rps14	0.458594623	0.000349252	0.252886013	0.000247294	promoter
ENSMUSG00000063524	Eno1	0.458964645	9.25635E-05	-0.22037571	0.000968789	promoter
ENSMUSG00000060938	Rpl26	0.463811954	0.000399752	0.227795589	0.004040842	promoter
ENSMUSG00000021242	Npc2	0.473038926	6.42102E-05	-0.385215664	1.71715E-06	promoter
ENSMUSG00000021242	Npc2	0.473038926	6.42102E-05	-0.549468094	0.0002141	intron
ENSMUSG0000006998	Psmd2	0.480219789	0.000165463	0.285321985	0.004808506	promoter
ENSMUSG00000087341	0610040F04Rik	0.480606938	6.01462E-08	0.272579081	6.26023E-06	promoter
ENSMUSG00000097125	Gm26885	0.501449259	7.31021E-28	0.391453933	3.75164E-11	promoter
ENSMUSG00000023274	Cd4	0.505453391	0.000225134	2.892001702	0	promoter
ENSMUSG00000030091	Nup210	0.506540944	0.003510189	-0.562945958	2.02286E-13	promoter
ENSMUSG00000063457	Rps15	0.51225622	3.59202E-07	0.246657272	0.004927727	promoter
ENSMUSG00000086725	A630052C17Rik	0.518075148	0.007300295	0.274318788	0.009598653	promoter
ENSMUSG00000071644	Eef1g	0.544466276	1.52915E-06	-0.627917842	3.66155E-09	intergenic
ENSMUSG00000024789	Jak2	0.561938001	4.24251E-08	0.523071953	1.15944E-20	promoter
ENSMUSG00000024789	Jak2	0.561938001	4.24251E-08	0.547498934	0.003302245	intergenic
ENSMUSG00000022283	Pabpc1	0.566242489	2.92654E-27	0.860694884	0.000106665	intergenic
ENSMUSG00000022312	Eif3h	0.572364514	1.92578E-05	0.624446367	0.008739606	intergenic

ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	0.368617101	1.00551E-11	promoter
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.461758302	6.74282E-06	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.58106046	0.000464366	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.77269468	1.80362E-09	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.74708349	4.10386E-11	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	0.349956951	0.002214841	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.439658197	1.58708E-05	intron
ENSMUSG00000007659	Bcl2l1	0.581272024	0.000143238	-0.624286208	3.76709E-18	intron
ENSMUSG000000039168	Dap	0.582092365	0.00852782	0.690333922	0.003814115	promoter
ENSMUSG000000010095	Slc3a2	0.583823367	8.76407E-06	0.271001085	0.001271153	promoter
ENSMUSG00000001467	Cyp51	0.587309019	0.00110446	0.421006873	5.22148E-05	promoter
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	0.459845695	2.9153E-10	intron
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	0.587736674	0.000497919	intron
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	0.460594827	5.16929E-05	intron
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	0.409267014	0.007620983	intron
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	0.389166055	1.2155E-05	intron
ENSMUSG000000021895	Arhgef3	0.589456469	0.002887368	-0.351254789	0.001086576	promoter
ENSMUSG000000039849	Pcf1	0.59468185	3.15241E-07	0.320342908	0.002601678	promoter
ENSMUSG000000075254	Heg1	0.596276866	0.004726718	0.713697689	5.58481E-07	intron
ENSMUSG000000075254	Heg1	0.596276866	0.004726718	0.413832772	1.15758E-08	promoter
ENSMUSG00000004043	Stat5a	0.602422574	3.53802E-07	0.342333335	2.36886E-06	promoter
ENSMUSG000000093674	Rpl41	0.606857551	3.63881E-10	0.314588712	1.75223E-05	promoter
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.852086187	2.62257E-06	intron
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.915377883	5.82434E-08	promoter
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.63261465	5.83273E-28	promoter
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.606192982	4.50962E-06	intergenic
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.582393839	0.006239067	promoter
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.929066705	5.27904E-25	intron
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.380658504	5.97856E-05	promoter
ENSMUSG000000027763	Mbnl1	0.621517826	5.29324E-06	0.399782418	0.003375067	intron
ENSMUSG000000037138	Aff3	0.625183211	0.002230761	0.350812008	0.005571387	promoter
ENSMUSG000000037138	Aff3	0.625183211	0.002230761	0.739920066	0.001986349	intron
ENSMUSG000000037138	Aff3	0.625183211	0.002230761	0.58666094	0.007962082	intron
ENSMUSG000000037138	Aff3	0.625183211	0.002230761	0.51574888	0.000119475	intron
ENSMUSG000000037138	Aff3	0.625183211	0.002230761	0.55510367	1.89854E-12	promoter
ENSMUSG000000037742	Eef1a1	0.625625081	7.66543E-64	0.321745531	5.16929E-05	promoter
ENSMUSG000000031320	Rps4x	0.631719015	1.86272E-05	0.24529264	0.005983699	promoter
ENSMUSG000000027678	Ncoa3	0.632449581	0.004801347	-0.492238183	0.00376183	intron
ENSMUSG000000027678	Ncoa3	0.632449581	0.004801347	-0.511806973	8.31698E-05	intron
ENSMUSG000000048251	Bcl11b	0.649007661	6.41604E-05	-0.437899511	1.33183E-12	intron
ENSMUSG000000048251	Bcl11b	0.649007661	6.41604E-05	-0.30437523	8.03427E-13	promoter
ENSMUSG000000048251	Bcl11b	0.649007661	6.41604E-05	-0.55810157	2.55547E-06	intron
ENSMUSG000000048251	Bcl11b	0.649007661	6.41604E-05	-0.555454677	2.17888E-11	intron
ENSMUSG000000053706	B430305J03Rik	0.649260826	3.97415E-11	0.40493099	8.74647E-07	promoter
ENSMUSG000000024098	Twsg1	0.649986601	0.000520866	0.814865153	7.39008E-09	intron
ENSMUSG000000024098	Twsg1	0.649986601	0.000520866	0.578022217	5.51227E-08	promoter
ENSMUSG000000024098	Twsg1	0.649986601	0.000520866	0.555682369	0.000551892	intron
ENSMUSG000000025362	Rps26	0.656239405	7.84432E-31	0.262812593	0.00202822	promoter
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.328879852	0.006209383	intron
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.622546118	7.5214E-07	intron
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.767142355	0.000473291	intron
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.619630915	0.000244751	intron
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.276498506	0.002478927	promoter
ENSMUSG000000051335	Gfod1	0.657109568	0.009410181	0.660171813	1.70565E-05	intron
ENSMUSG000000097006	953008P21Rik	0.665023499	0.000264536	-0.515411157	0.000217194	promoter
ENSMUSG000000020900	Myh10	0.671228868	0.002106401	0.607663129	0.001553103	intergenic
ENSMUSG000000039942	Ptger4	0.671609879	6.12489E-06	0.729215415	0.000472696	intergenic
ENSMUSG000000039942	Ptger4	0.671609879	6.12489E-06	0.669532554	0.00393011	intergenic
ENSMUSG000000039942	Ptger4	0.671609879	6.12489E-06	0.715899936	1.09101E-44	promoter
ENSMUSG000000039942	Ptger4	0.671609879	6.12489E-06	0.879459749	6.35529E-08	intergenic
ENSMUSG000000039942	Ptger4	0.671609879	6.12489E-06	0.723425544	4.61426E-07	intergenic
ENSMUSG000000055833	1700034H15Rik	0.673727569	0.0034006	0.436904576	0.000365759	promoter
ENSMUSG000000022475	Hdac7	0.697576102	7.52557E-08	0.227462591	1.83494E-06	promoter
ENSMUSG000000028943	Espn	0.708260705	0.004527412	-0.241916597	9.67132E-05	promoter
ENSMUSG000000018476	Kdm6b	0.708749572	9.25635E-05	-0.299699306	0.000559326	promoter
ENSMUSG000000085941	Gm11201	0.734985093	0.008243967	-0.406186871	0.003313074	intron
ENSMUSG000000040822	1700123O20Rik	0.738562002	3.24019E-06	0.324569595	0.000987454	promoter
ENSMUSG000000015869	Prpsap1	0.745520114	0.002151347	0.293449063	0.008405702	promoter
ENSMUSG000000050379	Sept6	0.779294503	0.002192237	-0.514642091	0.001620076	intron
ENSMUSG000000062125	Zbtb17	0.78182387	0.002533168	-0.391912044	0.008777395	intron
ENSMUSG000000054720	Lrrc8c	0.810641426	2.18048E-07	0.837042331	5.91438E-08	intergenic
ENSMUSG000000054720	Lrrc8c	0.810641426	2.18048E-07	0.358377342	2.64834E-07	promoter
ENSMUSG00000007892	Rplp1	0.81079568	7.17021E-27	0.880808204	3.38599E-06	intergenic
ENSMUSG00000004040	Stat3	0.811291915	8.08342E-19	0.238658797	0.002002417	promoter
ENSMUSG000000025791	Pgm2	0.823131558	0.000416404	-0.69592657	0.000625805	intron
ENSMUSG000000040952	Rps19	0.84239546	1.29667E-07	0.258030411	2.48038E-05	promoter

ENSMUSG00000098234	Snhg6	0.886774776	9.21334E-10	0.439030547	2.42949E-09	promoter
ENSMUSG00000028977	Casz1	0.891970516	6.96278E-05	0.754003168	6.53382E-07	promoter
ENSMUSG00000028977	Casz1	0.891970516	6.96278E-05	0.39959301	0.00036172	promoter
ENSMUSG00000085996	A830012C17Rik	0.902754316	1.73544E-08	0.666701517	0.003804575	promoter
ENSMUSG00000056031	9330154J02Rik	0.90568533	5.14988E-06	0.66543374	4.81104E-11	promoter
ENSMUSG00000097493	9930014A18Rik	0.938153961	2.0942E-12	0.427005919	1.43465E-05	promoter
ENSMUSG00000022385	Gtse1	0.939143359	0.000831983	0.242088458	0.002529188	promoter
ENSMUSG00000061731	Ext1	0.943373761	0.001674421	0.282047865	0.00119136	promoter
ENSMUSG00000061731	Ext1	0.943373761	0.001674421	0.688541263	0.000562652	intergenic
ENSMUSG00000036526	Card11	0.959159024	3.87178E-05	0.49004628	8.4361E-06	promoter
ENSMUSG00000032324	Tspan3	0.986271361	6.96278E-05	0.922327205	1.05261E-06	intergenic
ENSMUSG00000032324	Tspan3	0.986271361	6.96278E-05	0.777626078	2.04777E-06	intergenic
ENSMUSG00000032324	Tspan3	0.986271361	6.96278E-05	1.102460237	3.35093E-14	intergenic
ENSMUSG00000032324	Tspan3	0.986271361	6.96278E-05	0.39563427	2.21717E-05	promoter
ENSMUSG00000028270	Gbp2	1.029837315	6.78722E-11	0.305087762	0.006535053	promoter
ENSMUSG00000041607	Mbp	1.035374191	2.28894E-11	0.401986279	5.92515E-05	intron
ENSMUSG00000041607	Mbp	1.035374191	2.28894E-11	0.435048067	3.9449E-07	intron
ENSMUSG00000041607	Mbp	1.035374191	2.28894E-11	0.347631078	3.192E-09	promoter
ENSMUSG00000031765	Mt1	1.069423408	4.62556E-11	0.285779912	0.008920319	promoter
ENSMUSG00000031765	Mt1	1.069423408	4.62556E-11	0.285779912	0.008920319	promoter
ENSMUSG00000031765	Mt1	1.069423408	4.62556E-11	0.285779912	0.008920319	promoter
ENSMUSG00000031765	Mt1	1.069423408	4.62556E-11	0.285779912	0.008920319	promoter
ENSMUSG00000048109	Rbm15	1.073515586	3.32889E-06	0.243208037	0.008372134	promoter
ENSMUSG00000028496	Mllt3	1.076130498	7.41181E-07	0.61107096	7.01039E-06	intron
ENSMUSG00000028496	Mllt3	1.076130498	7.41181E-07	0.459300403	3.77884E-07	intron
ENSMUSG00000028496	Mllt3	1.076130498	7.41181E-07	0.270848988	0.003002312	promoter
ENSMUSG00000038418	Egr1	1.096776503	3.21832E-19	-0.330507233	1.29613E-05	promoter
ENSMUSG000000086600	C030005K06Rik	1.116442433	2.58867E-06	0.308644864	0.00119136	promoter
ENSMUSG00000015312	Gadd45b	1.1204642	2.72882E-14	0.241000149	0.002912653	promoter
ENSMUSG00000039697	Ncoa7	1.13686124	0.004546244	0.506969001	0.000345349	promoter
ENSMUSG00000021025	Nfkbia	1.179243592	1.89403E-42	-0.383341811	0.004104797	intergenic
ENSMUSG0000003865	Nfkbia	1.179243592	1.89403E-42	-0.445182741	0.007195509	promoter
ENSMUSG000000086648	Gm15511	1.194989984	0.001242532	0.593724295	0.000342467	intron
ENSMUSG00000024712	Rfk	1.223465	6.48066E-05	0.636119383	1.66197E-05	promoter
ENSMUSG00000020396	Nefh	1.231469656	2.36694E-10	-0.451485948	0.005289398	promoter
ENSMUSG000000093930	Hmgcs1	1.254163077	4.24732E-08	0.277701053	0.007743242	promoter
ENSMUSG000000085585	Gm12223	1.255130276	1.32248E-18	0.782669064	5.16194E-07	promoter
ENSMUSG00000030790	Adm	1.337093654	0.008086135	1.073015196	1.11469E-14	promoter
ENSMUSG00000026700	Tnfsf4	1.377603974	9.82297E-12	1.352741454	2.90226E-17	intergenic
ENSMUSG00000026700	Tnfsf4	1.377603974	9.82297E-12	1.060697787	3.40525E-44	promoter
ENSMUSG00000026700	Tnfsf4	1.377603974	9.82297E-12	0.974780883	9.33988E-12	intergenic
ENSMUSG000000033350	Chst2	1.405956289	5.02386E-18	0.484473253	0.000363514	intergenic
ENSMUSG00000032009	Sesn3	1.415385562	1.99427E-10	0.48950528	3.48178E-06	promoter
ENSMUSG00000019489	Cd70	1.430334367	0.004953388	0.779343407	1.08323E-08	promoter
ENSMUSG000000087366	BC042782	1.449752911	2.06809E-60	0.560611075	1.67126E-16	promoter
ENSMUSG000000087366	BC042782	1.449752911	2.06809E-60	0.427119058	0.000650364	promoter
ENSMUSG00000038352	Arl5c	1.481964983	4.19553E-07	0.453904626	0.005524821	promoter
ENSMUSG00000021453	Gadd45g	1.52323348	5.67169E-10	0.516475837	1.30391E-09	promoter
ENSMUSG000000036256	Igfbp7	1.565432106	2.19215E-10	0.758264422	4.67894E-05	intron
ENSMUSG00000036256	Igfbp7	1.565432106	2.19215E-10	0.636730867	0.002080939	intron
ENSMUSG00000041801	Phlda3	1.639297206	4.37692E-08	0.580710947	5.55968E-13	promoter
ENSMUSG00000022178	Ajuba	1.647555908	0.00064145	0.471451777	4.7189E-06	promoter
ENSMUSG00000064043	Trerf1	1.652260039	2.72764E-06	0.649371988	0.000362589	intron
ENSMUSG00000064043	Trerf1	1.652260039	2.72764E-06	0.942532234	5.97548E-08	intron
ENSMUSG00000064043	Trerf1	1.652260039	2.72764E-06	0.682822869	0.000188643	intron
ENSMUSG00000027381	Bcl2l11	1.675463342	5.1395E-07	0.801023535	3.7985E-22	promoter
ENSMUSG00000041782	Lad1	1.700458757	2.57353E-05	0.428319589	0.000982492	promoter
ENSMUSG000000044340	Phlpp1	1.701048799	1.2281E-05	0.438326624	0.001877584	promoter
ENSMUSG000000041272	Tox	1.722076597	2.71467E-05	0.601397451	4.35339E-10	promoter
ENSMUSG00000037868	Egr2	1.738995605	3.17356E-13	0.725645338	1.13249E-28	promoter
ENSMUSG0000002565	Scin	1.849919616	0.000110744	0.985286259	5.00701E-09	promoter
ENSMUSG00000003153	Slc2a3	1.851218615	3.85032E-14	0.309210699	0.00743756	promoter
ENSMUSG00000003153	Slc2a3	1.851218615	3.85032E-14	0.309210699	0.00743756	promoter
ENSMUSG00000029178	Klf3	1.856163667	1.96795E-05	0.628522648	1.74476E-07	promoter
ENSMUSG000000062785	Knc3	1.883446906	0.000144201	0.826394302	3.97764E-06	promoter
ENSMUSG00000003032	Klf4	1.922935825	2.25734E-11	0.810462284	7.03801E-11	promoter
ENSMUSG000000033083	Tbc1d4	2.2047915	5.67321E-07	0.719955372	0.001168133	intron
ENSMUSG000000035799	Twist1	2.721298324	9.80599E-21	1.08601454	2.15428E-14	promoter
ENSMUSG000000035799	Twist1	2.721298324	9.80599E-21	0.87033531	2.27018E-05	intergenic
ENSMUSG000000035799	Twist1	2.721298324	9.80599E-21	0.820411884	0.000356933	intergenic
ENSMUSG000000035799	Twist1	2.721298324	9.80599E-21	0.905977238	6.1575E-05	intergenic
ENSMUSG000000029581	Fscn1	3.01165199	4.8603E-34	1.126085679	1.0294E-15	promoter

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